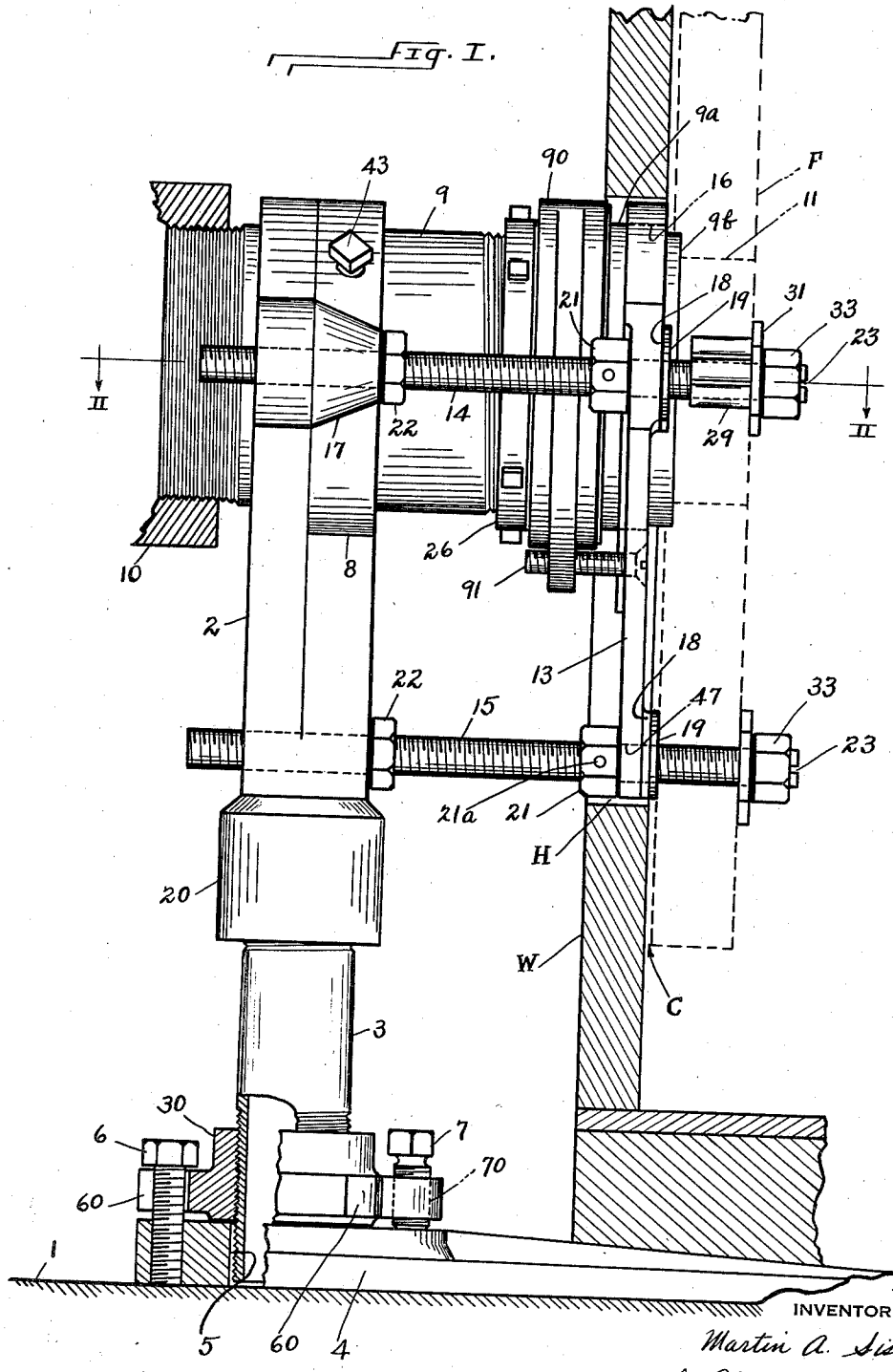
July 16, 1940. M. A. SISK 2,208,199

WATER CLOSET SUPPORT

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Fig. I.



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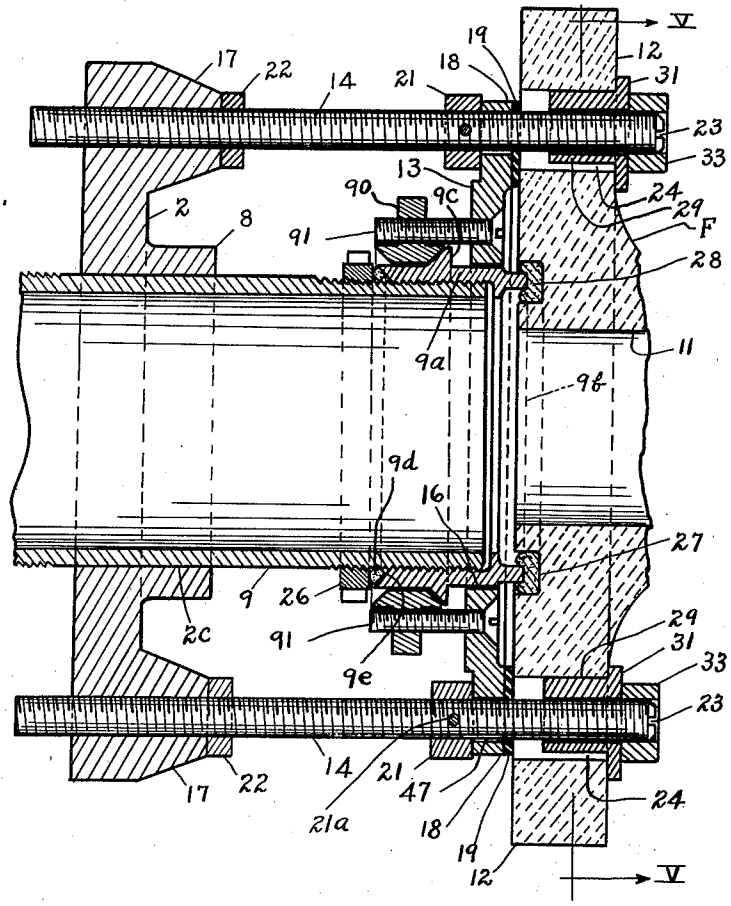
attorneys

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Fig. II.



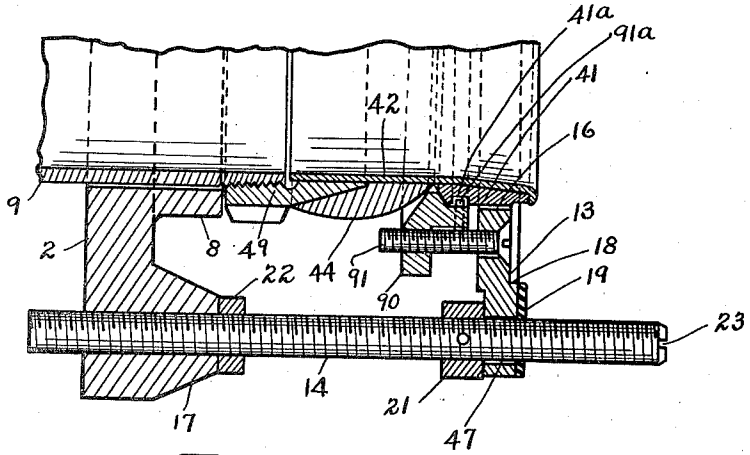


Fig. III.

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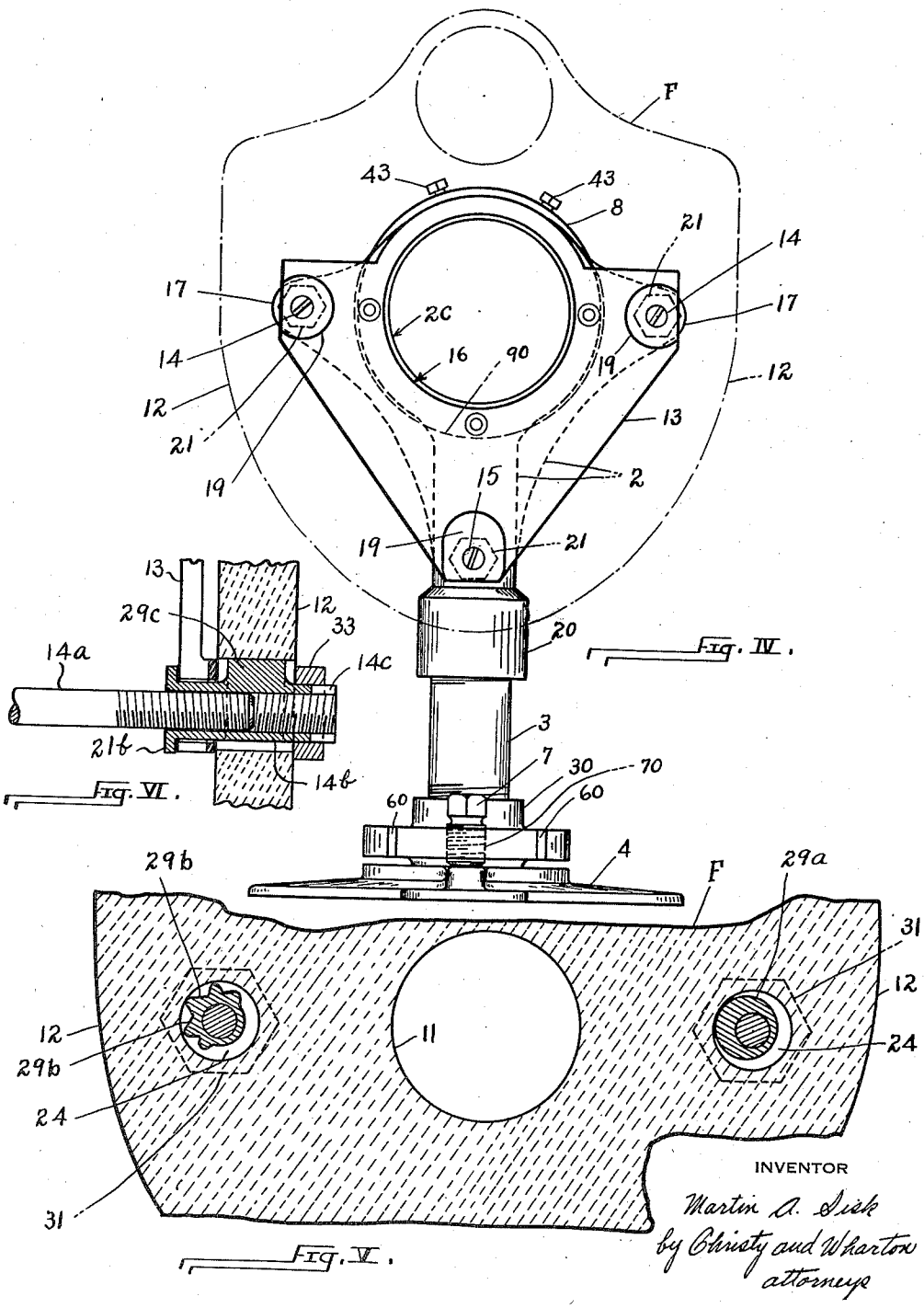


Fig. IV.

Fig. VI.

Fig. V.

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UNITED STATES PATENT OFFICE

2,208,199

WATER CLOSET SUPPORT

Martin A. Sisk, Pittsburgh, Pa.

Application June 8, 1938, Serial No. 212,482

21 Claims. (Cl. 4—252)

My invention relates to plumbing and consists in an improved support for wall closets, urinals, and other wall fixtures.

In the accompanying drawings Fig. I is a view, showing partly in side elevation and partly in vertical section a support embodying the invention, and illustrating fragmentarily in dotted lines a plumbing fixture mounted on the support. Fig. II is a fragmentary view, showing the assembled structure in horizontal section, on the plane II—II of Fig. I. Fig. III is a quarter-sectional view, illustrating certain modifications in the structure shown in Fig. II. Fig. IV is a view of the support in front elevation. Fig. V is a fragmentary view, illustrating the supported fixture and certain fixture-adjusting parts of the support on the plane V—V of Fig. II. And Fig. VI is a fragmentary view of one of the fixture-supporting bolts of the support, and illustrating a permissive modification.

Referring to the drawings the structure of the invention consists in a vertically extending body that is supported upon a rigid base. In this case, as is the usual case in the field, the rigid base consists in the sub-floor 1 of the building in which installation is made, and the vertically extending body consists in a heavy plate-like body 2, secured upon the upper end of a rigid leg 3 that extends upward from a foot 4. The leg 3 is formed of a length of metal tubing. The tube 3 is threaded at its upper end and tightly secured in a tubular portion 20 on the body 2. The tube is also threaded at its lower end; an internally threaded collar 30 is secured upon the threaded tube, and in turn the collar is fastened to the heel of foot 4, by means of a heavy screw 6, with the lower end of the tube, projecting downward from the collar, nested in a socket 5 formed in the foot 4. At the front of the leg a screw 7 is threaded in the collar 30, and this screw, when tightened, bears upon the top of foot 4, exerting a force that tends to tilt the collar towards the heel of the leg-and-foot assembly, with the consequence and effect that the assembly is stressed, removing all play from between the parts, and insuring rigidity of assembly, with the foot pressed flat, from toe to heel, upon the floor 1. The effective length of the leg 3 may be varied as need be, by rotating the collar 30 on the threaded tube 3, before the screws 6 and 7 are run into the positions shown. When proper length of the leg has been obtained, as presently will appear in greater detail, the screws 6 and 7 are introduced and tightened. The collar 30 is provided with a series of circumferentially spaced slots 60 and threaded holes 70, so that the collar 30 may be adjusted on the leg 3 through angles less than 360°—say 120° intervals—to permit precision of adjustment, well within practical requirements.

The body 2 of the support is formed of metal, cast iron for example, and includes a circular opening 2c through which an outlet pipe 9 extends, to establish communication between the usual waste-pipe and the discharge passage of the fixture to be supported. The terminal of the waste-pipe is indicated fragmentarily at 10 in Fig. I, and the flanged body of a porcelain water closet is indicated in dotted lines F, with the reference numeral 11 applied to its outlet passage. A cylindrical flange 8, integral with the body 2 and concentric with the opening 2c, carries a plurality of set screws 43, by means of which the pipe 9 is secured in proper position.

In accordance with the invention, the support structure includes a yoke 13 that is carried by a plurality of horizontal bolts. In this case the bolts are three in number, two upper bolts 14 arranged symmetrically on opposite sides of the outlet pipe 9, and a lower bolt 15 arranged below pipe 9, in the vertical mid-plane of the structure. Compare Figs. I and IV. (It will be understood, of course, that in some cases a pair of lower bolts may be provided in symmetrical relation with respect to the upper bolts 14.)

The yoke 13 is a heavy plate of cast iron, provided with an orifice 16 for the passage through of a nipple 9a carried in threaded union on the outer end of outlet pipe 9, and three passages 47 for the bolts 14, 15. The bolts 14, 15 are secured in threaded engagement with the body 2, and advantageously the threaded engagement of the bolts 14 with such body is extended in bosses 17. The bosses 17, integrally formed on the body 2, increase the rigidity and strength of the assembly.

The bolts extend with sliding fit through the yoke 13. They are provided with fixed shoulders (in this case with nuts 21 riveted, as at 21a, to the shanks of the bolts), against which the yoke 13 is secured.

In Fig. I the reference character W is applied to the wall (known in the art as the utility wall) that in usual way is provided with an opening H, over which the pottery fixture is mounted. The bolts 14, 15 extend through the opening H and the yoke 13 lies within such opening. The bolts are severally adjustable, so to position the shoulders 21, against which the yoke bears, that the outer face of the yoke extends substantially in

common plane with the outer surface of wall W. The outer ends of the bolts are kerfed, as shown at 23, so that a screw-driver may be used in making the adjustment. And the shanks of the bolts carry jam-nuts 22 which are tightened against the body 2 (against bosses 17 in the case of bolts 14) for locking the bolts in adjusted positions.

Considering the structure more specifically, the outer face of the yoke is provided with bosses 18 in the three regions where the bolts 14, 15 extend through, and the outer surfaces of these bosses are accurately machined, to lie in common plane. In service each of the bosses 18 is faced with a thin rubber washer 19, and it is against these washers that the pottery body of the supported fixture is secured; that is, the bolts 14, 15 extend through the usual holes 24 provided in the flanges 12 of the fixture, and nuts are tightened on the outer ends of the bolts, drawing in and securing the fixture against the rubber-faced bosses 18 on the yoke. It will be understood that the yoke 13 is an important element of the support structure. And it is important to note that the utility wall W need bear no load; indeed, a minute clearance C (Fig. I), in this case a clearance equal to the thickness of the rubber washers 19, is provided between the outer surface of the wall and the body of the fixture.

As shown in Fig. II, the body of the fixture includes the usual annular groove 27 that encircles the mouth of outlet passage 11. In the assembly this recess receives the outer end 9b of the nipple 9a, and an asbestos packing 28, compressed in the groove, provides a hermetic and liquid-tight seal. Thus, the outlet passage 11 of the fixture is connected through the nipple and pipe 9 to the waste pipe 10 (Fig. I).

From the foregoing specification it will be understood that the adjustable bolts 14, 15 admit of the desired precise alignment of the yoke in the plane of the wall W. Expressed more precisely, the bolts are so adjustable that the yoke may be positioned with the machined faces of its bosses 18 lying in the plane of the outer surface of the wall. And as already mentioned, the elastic bodies of the washers 19 assembled upon such faces of the bosses establish the margin of clearance C between the supported fixture and the wall.

The support structure lends itself to another important feature of adjustment, by virtue of which the fixture, upon being secured in temporary position against the yoke 13, may be adjusted vertically, laterally, and angularly. Means to such end are found in eccentric sleeves 29, mounted on the shanks of the bolts 14, and lying within the cylindrical holes 24 in the fixture.

The shanks of the bolts 14, 15 are of substantially smaller diameter than the holes 24, and it will be perceived that, within a range equal to the difference in diameter between the bolts and the holes, the body of the fixture may be shifted vertically and laterally, and may be angularly adjusted on the axis of the outlet pipe 9. An eccentric sleeve 29 may be provided on each of the three bolts 14, 15. However, I have found that sleeves 29 need be provided only on two of the bolts, preferably on the two bolts lying on opposite sides of the outlet pipe 9—the two upper bolts 14 in this case. Manifestly, by turning the two eccentric sleeves on the bolts 14, the body of the supported fixture may, in the plane of the yoke 13, be adjusted vertically and laterally within a range of adjustment limited by the throw or eccentricity of the sleeves. Alternately, by turning only one of the eccentric sleeves, the supported fixture may be tilted about the other sleeve as a center. It will be perceived, therefore, that the fixture may be accurately leveled, and may be so adjusted on the yoke 13 that the annular groove 27 in the back of the fixture is accurately centered with the outer end or edge of the nipple 9. Thus such minute adjustment is provided that in the completed installation the edge of the nipple may be centered in the groove 27 without bearing upon the pottery body of the fixture. When proper adjustment has been effected, the usual cap-nuts (not shown) are screwed on the ends of the bolts and the assembly rigidly integrated.

In structure the eccentric sleeves may consist in cylinders of metal, having bores drilled eccentrically of their axes for the passage through of the bolts, as indicated in cross-section at 29a, in Fig. V. And desirably, if not essentially, the sleeves are severally provided with integral flanges 31 that in the assembly extend radially outward from the sleeves and seat against the outer faces of the flanges 12 of the pottery fixture F. The flanges 31 are hexagonal, as viewed in plan, and may be readily engaged by a wrench to facilitate the turning of the sleeves. In refinement the cylindrical bodies of the eccentric sleeves may be longitudinally grooved, providing a circumferential series of ribs 29b (Fig. V) that forms a skeleton of the eccentric cylinder described. If, as sometimes is the case, the holes 24 in the flanges 12 of the fixture vary in size and shape from specifications, the outer edges of the ribs 29b may be readily filed down, to make compensation for the variation.

My support structure embodies means that cooperate with the set-screws 43 in securing the outlet pipe and nipple in rigid assembly with the support body 2 and yoke 13, and these means merit particular attention. Considering Fig. II, it will be perceived that the nipple 9a is provided with a rearward tapering circumferential flange 9c. Engaging this flange is a pressure ring 90. A plurality of screws 91 (three in this case) extends rearward from the yoke 13 into threaded engagement with the ring and provides means for drawing the ring tightly against the tapered flange 9c, with the consequence that the pipe 9, and the nipple 9a carried thereby, are rigidly secured to the yoke 13. The yoke in turn is (by the bolts 14, 15) rigidly united to the main support body 2, and the pipe 9 is rigidly secured in the waste-pipe 10 (Fig. I), the waste-pipe itself being a thing that is rigid as normally installed in a building.

In still further refinement, the rear end of the nipple 9a is inwardly chamfered at 9e. A ring 9d of suitable packing material, such as asbestos, is by a gland-ring 26 (screwed on the threaded pipe 9) compressed against the seat 9e, and such structure serves to seal the threaded union of nipple 9a with pipe 9 against leakage.

I shall now describe how a typical installation is made. When the waste pipe 10 has been installed in usual way, the pipe 9 and tube 3 are cut from stock to properly measured length and threaded. The tube 3 is tightly screwed into the opening therefor in body 2; the collar 30 is run on the tube 3, and the lower projecting end of the tube is nested in the socket 5 in foot 4. Then, with the structure properly positioned on floor 1, the collar 30 is rotated, until the body 2 is brought into such position that the outlet pipe 9 may be projected through the orifice 2c in the

body of the support and screwed into the threaded opening of the waste pipe. Then, the set-screws 43 are tightened; the collar 30 is screwed downward on the tube 3, tightly against the top of the foot 4, with one of the slots 60 in position above the screw hole in the heel of the foot. The screw 6 is inserted and tightened by hand, and then the screw 7 is inserted and tightened with a wrench, whereby the foot is pressed flatly against the floor 1, and the leg and foot assembly stressed, to remove all play and insure absolute rigidity of assembly. If the screw 6 is not tight (after screw 7 has been tightened), it is tightened with a wrench.

When the assembly has been thus far completed, the gland-ring 26, gasket 9d, pressure ring 90 and nipple 9a are loosely assembled in the order named on the outer end of pipe 9. Then, the bolts 14, 15 and yoke 13 are loosely assembled with the body 2, with the jam-nuts 22 loosened and the bolts 14, 15 adjusted in such positions that the yoke 13 lies substantially flush with the finished wall line.

In the usual course of building construction, the utility wall W is erected when the installation of the plumbing fixtures has been carried to this stage.

After erection of the utility wall W, the yoke 13 is adjusted to the plane of the wall, the bolts 14, 15 being rotated, either in one direction of rotation or the other, to admit of the adjustment. Then, the nipple 9a is adjusted on the outer end of pipe 9, so that its forward end 9b projects (say 1/4") outward from the common plane of the bosses 18. And next the fixture F is mounted temporarily on the bolts 14, 15, with the eccentric sleeves 29 positioned on the bolts 14 and secured with temporary nuts 33, as shown. The gasket 28 is omitted from the groove 27. With the aid of a screw-driver, the bolts 14, 15 and yoke are adjusted, until the fixture rests level, spaced about 1/16" from the face of the wall W and positioned firmly against the resilient washers 19. The eccentric sleeves 29 are now rotated to obtain such further adjustment of the fixture as is needed, particularly to bring the outlet passage 11 to center with the nipple 9a, that is, to bring the annular groove 27 in the fixture to accurately centered position with respect to the outer end of the nipple. Care must be exercised to make sure that the pottery body of the fixture adjacent the groove 27 does not "ride" on the end of the nipple. When these adjustments have been made, the position of rotary adjustment of each sleeve 29 in the flanges 12 is indexed, say by marking the collar portion 31 of the sleeve and the surface of the flange 12 adjacent to the periphery of such collar portion. Then the nuts 33 are removed from the bolts; the fixture is taken from the support; the nipple 9a is adjusted to final position; the yoke 13 is removed from the bolts; the gland-ring 26 is tightened against packing ring 9d; the jam-nuts 22 are tightened; and the yoke is replaced on the bolts. The parts of the support are thus adjusted and locked in proper positions for the permanent installation of the fixture, and it will be perceived that all adjustments may be made from the outside of the wall W.

Before the fixture F is reassembled on the support, the screws 91 are inserted and the pressure ring 90 drawn tightly against the collar 9c on the nipple, thereby effecting rigidity of assembly of the nipple and outlet pipe with the yoke 13.

The fixture is reassembled on the support, with the asbestos gasket 28 in the annular groove 27, and the eccentric sleeves in the indexed positions in the flanges 12 of the fixture. Finished nuts or caps of usual sort are then screwed upon the projecting ends of the bolts 14, 15 and tightened. The assembly is complete, and it will be understood that the gasket 28 is compressed, as illustrated in Fig. II, and provides the desired seal between the outlet 11 of the fixture and the nipple.

The workman must be careful to see that the gasket 28 is fully compressed and the flanges 12 of the pottery fixture are firmly seated on the rubber washers 19, before the nuts are fully tightened. Otherwise, the flanges of the fixture may be fractured. If it be found that a moderate tightening of the nuts does not bring the flanges to position against the rubber washers, the fixture must be removed and the nipple 9a readjusted. In the final installation the flanges of the fixture must be tightly secured against the rubber washers 19, and the edge of the nipple member must be in sealed contact with the gasket 28 without exerting undue stress on the pottery body of the fixture.

In Fig. III, I illustrate a modification in the structure of the nipple that adapts the support to the use of lead or copper, as required by certain plumbing codes. Specifically, I provide a sleeve 41, which in this case is formed of brass. The sleeve 41 provides external reinforcement and support for a nipple 42 of lead (a ductile or semi-rigid material) that at one end is flared over, or soldered to, the peripheral edge of the sleeve. The opposite end of the lead nipple is united to a threaded body member 49 of the nipple structure proper, by means of a wiped lead joint 44. The member 49 is tightly screwed on the outer end of outlet pipe 9, and the lead-supporting sleeve 41 is secured to the yoke 13, by means of the pressure-ring 90 and screws 91. The lead nipple is sealed in assembly with the body of the fixture F, in the same general manner as the nipple 9a, already described. The sleeve 41 may be externally grooved, as at 41a, and a pin 91a may be inserted through a suitable perforation in the pressure-ring 90, to hold the pressure ring in proper position while the screws 91 are being introduced.

Among the many other modifications that are permissible in the structure described, I shall mention several that are held in contemplation for the fixture-supporting bolts 14, 15. These bolts need not be made in one-piece. As shown in Fig. VI each bolt may consist in a threaded stem portion 14a carrying an internally threaded sleeve portion 14b. The sleeve portion is provided with an integral collar 21b that in the assembly provides one of the abutments against which the yoke 13 seats. The stem portion 14a may be secured in threaded union to the support body 2 (Fig. I), or in some cases it may be secured in a welded or riveted union. The sleeve portion 14b is adjustable on the stem, to bring the abutment 21b into such position that the yoke 13 will, when secured against the abutment, extend substantially in the plane of the utility wall, as described. It is characteristic of this modified bolt structure, as in the bolt structure first described, that all adjustments may be effected from the outside of the utility wall, it being noted that the outer end of the sleeve portion is slotted, at 14c, to receive the tip of a screw-driver. The sleeve portion is externally

threaded, to receive a plain nut (33, Fig. I) when the fixture F is temporarily positioned on the support, and a cap-nut when the fixture is permanently mounted on the support.

In further elaboration, the eccentric sleeve 29, normally an individual element, may be integrally formed in the body of the sleeve portion, as illustrated at 29c in Fig. VI.

Returning to Fig. II, it will be noted that in some cases the pressure ring 90 may be formed integrally with the nipple member 9a.

The advantages of the structure of this invention are manifold. The structure includes facilities by virtue of which a device of one type may be adapted for various buildings, or building conditions, in which utility wall thickness, depth of utility chambers, depth of sub-floor, available location for drainage fittings, and other factors may differ widely. The positions of various parts of the assembly are not limited in relation to each other; that is, adjustments are permitted in the structure to compensate for construction and piping variations, such as in the position of drainage fittings, utility wall, or sub-floor, and also for variations in length of pipe, thickness of fixture gasket, depth of gasket groove in fixture, and other factors. Both the pipe leg and outlet pipe are cut to required length and threaded by mechanics in the field. This method provides full latitude in erection. The pipe leg is cut to suit the position of the support body and sub-floor, while variations therein and in the leg itself are compensated for by the adjustment of the threaded collar or plate on the bottom of the leg.

The outlet pipe is cut to suit the positions of the waste pipe and utility wall, while variations therein or in the pipe itself are compensated for by the adjustment of the nipple upon the outer end of the outlet pipe. While the outlet pipe is fastened to the support body 2 by means of set screws, the provision of the pressure ring affords additional security, preventing the outlet pipe from slipping through the body 2.

In modification of the showing in Fig. II, the outlet pipe may extend to or substantially to the gasket 28 at the mouth of passage 11 in the fixture.

In all forms of my structure the horizontal passageway from the fixture to waste-pipe is relatively smooth and unobstructed.

It will be observed that the body 2 of the support is adjustable horizontally on the outlet pipe, and that after the piping has been completed, the body 2 can be installed thereon at any point between waste-pipe 10 and gland-ring 26, so long as the body is positioned within the range of adjustment of the bolts 14, 15. And as already mentioned, the body 2 is also adjustable relatively to the sub-floor and waste-pipe, by means of the leg 3 and threaded collar 30.

In addition to the adjustments already described, the bolts 14, 15 make possible the positioning of the body 2 in proper relation to the utility wall and waste-pipe. Adjustment of the bolts permits, as already mentioned, wide latitude in the matter of utility wall thickness and location of the waste-pipe.

The yoke 13 is adjustable relatively to the utility wall, to compensate for variations in the position of wall, to space the supported fixture free from wall, and to level the fixture.

The nipple 9a is adjustable relatively to the waste-pipe and the yoke, to compensate for variations in length of pipe, position of utility wall, thickness or compressibility of the gasket 28, and depth of the gasket groove 27. Both the gasket 9d and gland-ring 26 are on the outside of pipe 9, where they are readily accessible to the mechanic. The nipple assembly permits variation in pipe size, and adapts the structure for use with fixtures (closets or urinals) in which the outlet passages are intended for either larger or smaller piping than that in use.

As those in the art will realize, a test-plate and gasket may be positioned at the outer end of pipe 9 and held in position by the inner shoulder of nipple 9a, in order to seal the piping while making the usual "water test."

The pressure ring 90 and screws 91 hold the outlet pipe and nipple in rigid position on the yoke. Consequently, the piping contributes to the vertical support of yoke and fixture. This feature is particularly valuable in case the support body 2, 3, 4 has to be adjusted axially of the outlet pipe. The pressure ring 90 bears upon the beveled surface of collar 9c and centers the nipple 9a with the opening 16 in the yoke. This permits the opening 16 to be made oversize, to admit of free turning of nipple during assembly. The thrust of the fixture upon the nipple is taken by the pressure ring, and advantageously is transmitted therefrom, by the screws 91, to the yoke 13 and bolts 14, 15. This avoids undue localized strain on the parts, and prevents the slipping of outlet pipe 9 in the opening 2c of support body 2. It may be noted that the pressure ring 90 is held in position by the gland-ring 26 while the screws 91 are being introduced. The adjustability of the yoke and nipple provides a safeguard against the breakage of the pottery body of the fixture, which matter of breakage has heretofore constituted a problem in installations such as this.

With proper adjustment of the yoke relatively to the utility wall, and of the nipple relatively to the pottery fixture, the fixture may be bolted tightly to the yoke (against the rubber washers 19) without engaging the utility wall at any point. In such position, the pressure of the fixture upon the nipple is comparatively light, merely sufficient to compress the gasket 28 and provide the desired seal. That is to say, the pottery body and pressure ring are not unduly strained, and will not break when the cap-nuts are fully tightened on the bolts 14, 15. However, if the nipple is positioned with its outer end extended too far beyond the yoke 13, the body of the fixture will (or may) bear solidly on the nipple, in such manner that one of the parts will break if the fixture-securing nuts are over-tightened. As a safeguard against breakage of the pottery fixture in such case, the pressure ring is purposely designed to rupture before the pottery body, whereby breakage of the more costly fixture is prevented.

It will be perceived of my structure that the rigidity of assembly is not attained merely by resting the foot upon the sub-floor. Understanding that the metal bodies of the support are slightly elastic, and that slack or play tends to develop between the parts, it will be understood that the imposed load will tend to create movement between the parts, unless means are provided either to remove the slack or prevent it from developing. The combined vertical weight of the piping and fixture is applied to the foot 4 by screwing down the collar 30 tightly. This tends to remove any slack or play that may exist in the assembly. The cantilever component of

the imposed load is prevented from developing play between the parts, by the tightening of the set screws **43**, anchor bolt **6**, and thrust screw **7**. The anchor bolt **6** and thrust screw **7** establish what is known in mechanics as a couple, and such couple serves to distribute the load uniformly over the entire extent of the foot. All slack in the loose-threaded joint between collar **30** and the leg **3** is removed, and the leg and the support body are stressed against "elastic" movements, or tendencies to yield under the load, by simply tightening the anchor bolt **6** and thrust screw **7**. The lower end of the leg is positioned in the bore **5** of the foot, in order to align the parts. However, the security of assembly is not affected in the event that the leg is shorter than usual, and does not extend into such foot.

Within the terms of the appended claims various modifications, refinements, and elaborations, may be made in the structure described.

I claim as my invention:

1. A support for a wall fixture, said support including a leg and a foot supporting a vertically extending body portion that is vertically adjustable in such assembly and provided with means for rigidly locking the parts in adjusted positions, said foot being angularly adjustable relatively to said leg and equipped with means for stressing the structure and providing rigidity of assembly, said body portion carrying a plurality of bolts that extend horizontally from such body portion and are adapted to project through holes in the body of the fixture to be supported, said bolts being severally adjustable in horizontal direction and formed at their outer ends to receive an adjusting tool, said bolts being equipped with jamnuts arranged to be tightened against said body portion rigidly to lock the bolts in adjusted positions, a shoulder rigid on each bolt, a vertically extending yoke mounted on said bolts and seating against said shoulders, said yoke including bosses, and the ends of said bolts, projecting through said holes in the fixture, being equipped with nuts adapted to clamp the engaged body portion of said fixture tightly against said bosses and secure the yoke against the shoulders on said bolts, and certain of said bolts carrying eccentric sleeves that are rotatably adjustable in the holes in said fixture for adjusting the fixture in the plane of said yoke.

2. The structure of claim 1, in which said body portion and said yoke of the support include horizontally aligned openings for the passage of an outlet pipe and nipple assembly therethrough, said body portion including a flange carrying a screw for rigidly locking the outlet pipe to said body portion.

3. The structure of claim 1, in which the body portion and said yoke include horizontally aligned openings for the passage of an outlet pipe and nipple assembly therethrough, together with a nipple-engaging member secured to said yoke and axially adjustable relatively to the yoke.

4. A wall fixture support including a vertical leg and a foot extending angularly from said leg, in which a collar is vertically adjustable on said leg and cooperates with said foot to regulate the effective length of the leg, and a screw effective between said collar in adjusted position and said foot for angularly adjusting the foot relatively to the leg and stressing the support, substantially as described.

5. A support for a wall fixture, which support includes a vertically extending body, a plurality of bolts extending horizontally from said body, a vertically extending fixture-engaging member carried by said bolts, said bolts being accessible from the front of a supported fixture for adjusting said member, both horizontally and angularly, relatively to said body.

6. A support for a wall fixture, which support includes a vertically extending body carrying a plurality of bolts extending horizontally from said body and adapted to project through bolt holes in the supported fixture, said bolts being severally adjustable in said body and carrying eccentric sleeves that are rotatably adjustable within said holes for adjusting the supported fixture horizontally and vertically, substantially as described.

7. A support for a wall fixture, which support includes a vertically extending body and means for supporting such body in the rear of a vertical wall, said body carrying a plurality of bolts in screw-threaded engagement with such body and extending horizontally through said wall and adapted to support a wall fixture on the front of said wall, shoulders fixed on said bolts inward of the outer ends of the bolts, said bolts extending through a body portion of the supported fixture and being accessible from the front of said wall and the supported fixture for adjusting the positions of said shoulders relatively to the support body behind the wall, and means engaging the outer ends of said bolts for securing the fixture in fixed position relatively to said shoulders.

8. A support for a wall fixture, which support includes a support body carrying a plurality of bolts extending from said body and adapted to project into holes provided in the fixture to be supported, said bolts being severally equipped with shoulders adapted to be severally adjusted relatively to said body, the outer ends of the bolts being accessible from the front of the fixture mounted thereon for adjusting the effective lengths of the bolts and thereby varying the positions of said shoulders relatively to said body, and means engaging the outer ends of said bolts for clamping the fixture against the adjusted shoulders.

9. A support for a wall fixture including an outlet passage having a mouth opening in vertical plane, said support including a body engaging an outlet pipe adapted to be assembled with the mouth of said passage, said support carrying a plurality of bolts extending horizontally and adapted to be secured to and to support said fixture, said bolts being severally adjustable in axial direction for positioning said fixture with the mouth of its passage in proper vertical plane, and means on the bolts for adjusting said fixture to bring the mouth of said passage in such plane into registry with one end of said outlet pipe.

10. A support of the class described including bolts adapted to extend through cylindrical holes in a fixture to be supported, said bolts carrying sleeves provided with integral circumferentially spaced ribs of varied radial extent, said sleeves being rotatable on said bolts and affording adjustment of the supported fixture in a plane normal to the axes of said bolts.

11. A support structure for a fixture including a passage and a pipe connected to said passage, with a nipple secured in threaded engagement on said pipe in position between the pipe and said passage, a packing seat formed between the outer surface of the pipe and said nipple, a threaded gland-ring mounted externally on said pipe for compressing the packing against said seat, to seal the joint between nipple and pipe,

a support body upon which said fixture is borne, a pressure ring engaging said nipple, and means for securing said pressure ring to said support body.

12. A support structure for a fixture including a passage and a pipe connected to said passage, said support structure including two spaced-apart members supported one by the other, and means for securing said fixture to the supported member, a pressure ring engaging said pipe, and adjustable means for securing said pressure ring to said supported member of the support structure and adjusting the position of the end of said pipe relatively to the said supported members.

13. A support structure for a fixture including a passage and a pipe connected to said passage, with a shouldered nipple secured on the pipe and interposed between pipe and fixture, said support structure including two members supported one by the other, and means for securing the fixture to the supported member, a pressure ring engaging the shoulder on said nipple, and means for securing said pressure ring to said supported member.

14. A support for a wall fixture including a vertically extending body carrying a plurality of bolts extending from said body, shoulders assembled on said bolts, and means for securing said fixture against said shoulders, with the fixture supported against movement in both vertical and horizontal directions, said bolt-and-shoulder assemblies being provided at their outer ends with adjusting means which are accessible from the front of the supported wall fixture, whereby the positions of said shoulders relatively to said body of the support may be severally varied while the fixture is in supported position.

15. A support body, a pipe, said body being adapted to receive the pipe and provided with a plurality of bolts carrying a yoke adjustable in spaced relation with respect to said body, a nipple of semi-rigid material united with and extending from the end of said pipe, means for reinforcing the semi-rigid wall of said nipple, and means secured to and adjustable relatively to said yoke for securing the reinforced nipple against movement relatively to said yoke in both vertical and horizontal directions.

16. The structure of claim 15, in which said last-mentioned means include a pressure ring engaging said nipple-reinforcing means and adjustably secured to the yoke.

17. A device for supporting a plumbing fixture upon a wall, said device consisting in a support body adapted to rest upon the floor at the base of said wall and extending upward from the floor and at an interval inward from the face of the wall, said body carrying a vertically extending fixture-engaging member at an interval above said floor and substantially in the plane of the face of said wall, and means accessible from the front of a fixture supported on said last member for horizontally adjusting the position of such member relatively to said support body.

18. A device for supporting a plumbing fixture upon a wall, said device consisting in a support body adapted to rest upon the floor at the base of said wall and extending upward from the floor and at an interval inward from the face of the wall, fixture-engaging means comprising a member carried by a plurality of horizontally extending bolts in screw-threaded engagement with said support body at an interval above said floor, said bolts carrying shoulders spaced horizontally from the support body and bearing against said member, said bolts including bolt portions extending outward from said member into bolt holes in the supported fixture and being accessible, with the fixture supported upon the wall, for bolt adjustment, with the effect that the interval between said member and said support body may be regulated.

19. A support for a wall fixture including an outlet passage having a mouth opening in a vertical plane, said support including a body engaging an outlet pipe adapted to be assembled with the mouth of said passage, said support body carrying a plurality of horizontally extending members adapted to extend into holes in the body of the fixture, and eccentric members borne by said horizontally extending members, said eccentric members being formed to receive a tool for effecting their rotation in said holes in the body of the fixture and thereby adjusting the fixture in vertical plane, to bring into registry the mouth of said passage in the fixture with the end of said outlet pipe.

20. A device for supporting upon a wall a plumbing fixture including an outlet passage, with an outlet-pipe connected to the mouth of such passage, said device including a support body carrying at a horizontal interval therefrom a member upon which the supported fixture is borne, and means for the horizontal adjustment of such member relatively to the support body, a pressure ring engaging said outlet-pipe, and means extending between the horizontally adjustable fixture-bearing member and said ring for horizontally adjusting the ring relatively to such member, with the effect that the end of said outlet-pipe may be adjusted and secured in proper position with respect to the mouth of the passage in the supported fixture.

21. A device for supporting upon a wall a plumbing fixture including an outlet passage, with a nippled outlet-pipe connected to the mouth of such passage, said device including a support body carrying at a horizontal interval therefrom a member upon which the supported fixture is borne, and means for the horizontal adjustment of such member relatively to the support body, a pressure ring engaging the nipple on the end of said outlet pipe, and means for adjusting the pressure ring horizontally with respect to said horizontally adjustable fixture-bearing member, to secure said nipple in desired position relatively to the mouth of the passage in the fixture borne by said horizontally adjustable member.

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