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PLUMBING FIXTURE ADAPTER

Filed May 31, 1928

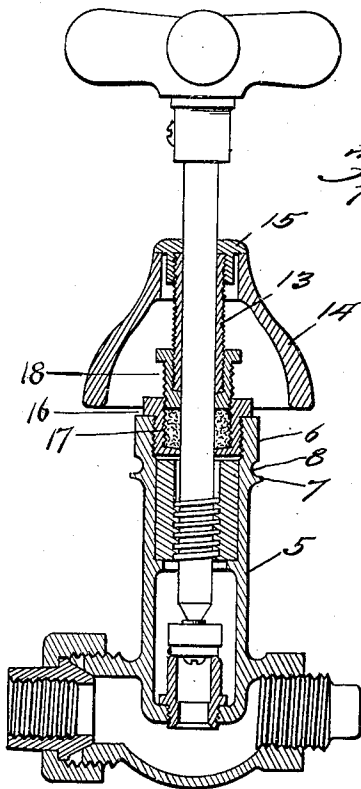


Fig. 1.

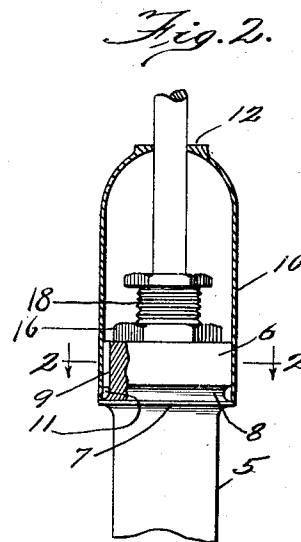


Fig. 2.

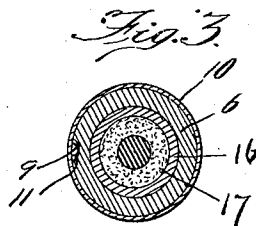


Fig. 3.

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PLUMBING FIXTURE ADAPTER

Application filed May 31, 1928. Serial No. 281,724.

My invention is an adapter for plumbing fixtures.

The object of my invention is the provision of a simple, inexpensive means for providing a finishing device for plumbing fixtures where the connections are concealed in the wall or partition and the operating mechanism or valve protrudes through the walls. It is peculiarly adapted to all such plumbing equipment as is shown in my application No. 56,399 filed September 14th 1925.

An illustrative embodiment of my invention is shown in the attached drawing, but it is only limited thereto as far as I am limited by the scope of my claims.

Fig. 1 is an elevation of a valve mechanism with portions exposed to show the internal and external structure, with a standard porcelain bonnet.

Fig. 2 is a similar valve structure with my adapter device shown in connection therewith.

Fig. 3 is a cross section of Fig. 2 at the line indicated by arrows.

In the installation of plumbing fixtures, when a building is being newly constructed the standard process is to install the rough parts in the wall and leave a protruding portion (with the valve mechanism removed) until after the plastering and finishing work is done. In the work of the finishers and plasterers the constant tendency is to not only leave on the fixture more or less plaster and other injuring influences, but quite often the portion of the mechanism protruding through the wall becomes injured before the building is complete. As the exposed portions of plumbing fixtures usually have some nickeling at a point where the fixture comes through the wall the said fixture is oftentimes injured beyond repair; and even if the same could be removed to be repaired, it is ordinarily out of the question. Likewise, in the use of plumbing fixtures the nickeled portions are apt to become injured in use, and when such injury occurs it is impossible to repair it except by a tearing away of the wall and removing the entirety of the fixture.

In a large number of cases a porcelain bon-

net or cap is assembled on the valve rod to cover the portion of the fixture extending out into the room beyond the wall finish. As illustrated my device is an adapter for all kinds of valve connections where they extend through the wall, and provides an arrangement whereby one standard valve body can be used and accommodate any type of finished equipment. 5 is the body of an ordinary valve combination being the stud portion which extends from the lines running in the partition or the wall out into the area designed for service. At or near the point of the wall connection I provide a collar or band 6 as an integral end portion of the body extension or stud 5. I provide a shoulder or flange 7 slightly larger in diameter than the collar 6 so that the hereinafter described adapter may snugly pass over 6 and find its stopping point at 7. Closely adjacent the annular flange 7 I provide an annular groove 8, and connecting therewith I provide a groove 9 longitudinally cutting the face of the collar 6 and bisecting the annular groove 8. This described member 5 is made to become a standard type in plumbing equipment fixture for the purposes described; and being made a standard casting it can be installed in the process of construction without the danger of suffering any injury from the workmen in plastering, in finishing, or in the use of their tools. The nut 16 for enclosing the valve mechanism, the packing 17, the gland nut 18, and the nipple 13 for attaching and supporting the porcelain bonnet 14, are shown in my former patent referred to and are a standard equipment. When in cases where the porcelain bonnet 14 type of finish is not used, and the other finishes are desired I provide a substantially tubular or adapter shell 10 having a boss or indent 11 directed inwardly adjacent one end of the shell 10. The purpose of this boss or indent 11 is to form a locking means for the shell; by passing the same down over the collar 6 the indent 11 follows the groove 9 until it reaches the annular groove 8 whence by a slight turn the adapter shell is locked upon the body extension. The shell 10 may be any length desired to meet the need. I provide a collar 12 upon a turned

over portion of the shell to surround the stem of the valve protruding therethrough.

It will be readily seen that this device makes a universally adaptable fixture, as it can be slipped on the fixture after all the building work has been done and can be made to suit any decoration desired for plumbing work, and the same can be removed at any time at the merest nominal expense by the merest novice, for any changes which may be desired.

This device, though primarily devised to cover the outer end of a fixture having a valve and valve regulating mechanism, is equally adapted to any such plumbing fixture where the conveying water pipes are installed in the partition or wall and an outlet or opening extends from the main line through the partition to a point of accessibility.

I claim:—

1. A fixture of the character described having on the surface of its outer portion an annular band, adjacent said band and approximately near the outlet end an annular groove, adjacent said groove a shoulder of greater diameter than the annular band, a groove in the annular band and communicating with the annular groove.

2. An outlet fixture for the purposes described wherein the supply pipes are concealed within a wall and a protruding portion therefrom extends through the wall, an end portion of said protruding portion having a bearing face, adjacent said bearing face and slightly spaced from the outer end of said protruding portion an annular groove, adjacent said groove and on the opposite side thereof from the bearing face an annular flange or shoulder having a greater circumference than the bearing face, a longitudinal groove in the bearing face extending cross-wise thereof bisecting the annular groove, and of substantially the same depth as the annular groove.

3. An outlet fixture for the purposes described wherein the supply pipes are concealed within a wall and having a protruding portion extending therefrom through the wall, the open end of said protruding portion being internally threaded and having an external annular bearing face, adjacent said bearing face and spaced from the outer end of said protruding portion an annular groove, adjacent said groove and on the opposite side thereof from the bearing face, an annular flange or shoulder having a greater circumference than the bearing face, a longitudinal groove in the face of the bearing extending cross-wise thereof bisecting the annular groove and of substantially the same depth as the annular groove.

4. In a device for the purpose described, a housing having an outlet formed with a bearing surface, an annular groove adjacent to bearing surface, an annular shoulder ad-

acent the annular groove, a valve stem, nuts threadedly assembled in said outlet adapted to cooperate with the valve stem, packing compressed between said nuts, a covering adapter formed to slidably operate upon the valve stem and engage said bearing surface and said annular shoulder and having means to engage in the annular groove to lockingly attach the adapter to the outlet of the housing.

5. A fixture of the character described having on its outer portion an annular band, adjacent said band and spaced from the outlet point of said outer portion an annular groove adjacent said groove a shoulder of greater diameter than the annular band, a groove transverse of the annular band and bisecting the annular groove, a tubular member whose internal diameter is fractionally greater than the external diameter of the annular band adapted to pass over the annular band and engage said shoulder, and means engaging in said annular groove to lock the said tubular member to said outer portion.

6. In a plumbing fixture forming an outlet from wall enclosed piping the outlet terminating in an outer bearing surface and internally threaded, adjacent the said bearing surface and spaced from the end thereof an annular groove adjacent said groove and more distant than the said groove from the fixture terminal an annular shoulder of greater diameter than the said bearing surface, a groove of substantially equal depth to the annular groove longitudinally cutting the surface of the bearing portion and bisecting the annular groove, an enclosing nut having an aperture for the insertion of a valve stem, packing in said nut and a packing gland nut.

7. A fixture of the character described having on its outer portion an annular band, adjacent said band and approximately near the outlet point of said outer portion an annular groove, adjacent said groove a shoulder forming an abutment, a groove in the annular band and bisecting the annular groove, a tubular member whose internal diameter is fractionally larger than the external diameter of the annular band, at one end of said tubular member an internal boss adapted to pass freely along the transverse groove and lockingly turn annularly in the annular groove, an opening in the opposite end of the tubular member adapted to receive a valve stem for operation therethru.

8. In a device for purposes described the combination with a valve contained outlet stud of a substantially tubular member adapted to cover the valve and valve mechanism operatively assembled in the stud and accommodate the valve stem extending therefrom, the external wall of the stud having an annular groove thereon, adjacent said groove and spaced from the end of the fixture an annular shoulder forming an abutting portion, a groove longitudinal of said

external wall and bisecting the annular groove; the tubular member having one end apertured to surround the stem of the valve portion, the opposite end of said tubular member of a diameter approximately equal internally to the external diameter of the end portion of said stud, a boss formed on the inside of one end of the tubular member adapted to be passed through the transverse groove when the tubular member is mounted upon said stud and adapted to be annularly turned into the annular groove and lockingly attach the tubular member to the stud.

9. A plumbing fixture of the class described having on its outlet stud portion an annular band, spaced from the outer end of said outlet portion an annular groove, adjacent said groove and on the side thereof opposite to that of the annular band a shoulder of greater diameter than the annular band, a groove transverse of the annular band and bisecting the annular groove, a substantially tubular member one end of which has an internal diameter fractionally larger than the external diameter of the annular band adapted to snugly pass over the annular band, one end of said tubular member having internal thereof means adapted to coact with the transverse groove and lockingly turn annularly in the annular groove.

10. A fixture of the character described having on and integral with its outlet stud portion an annular band, spaced from the outer end of said outlet portion an annular groove, adjacent said groove and on the side thereof opposite to that of the annular band a shoulder of greater diameter than the annular band, a groove on said annular band and bisecting the annular groove, a substantially tubular member having an internal diameter fractionally larger than the external diameter of the annular band and adapted to snugly pass over the annular band, one end of said tubular member having internal thereof means adapted to coact with the transverse groove and lockingly turn annularly in the annular groove, the opposite end of the tubular member formed to coact with a valve rod and effect a substantial closure.

Signed at Chicago, Illinois, May 23, 1928.
FREDERICK C. KUHNLE.