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P. GILLEN

1,495,733

PLUMBING FIXTURE

Filed March 17, 1923

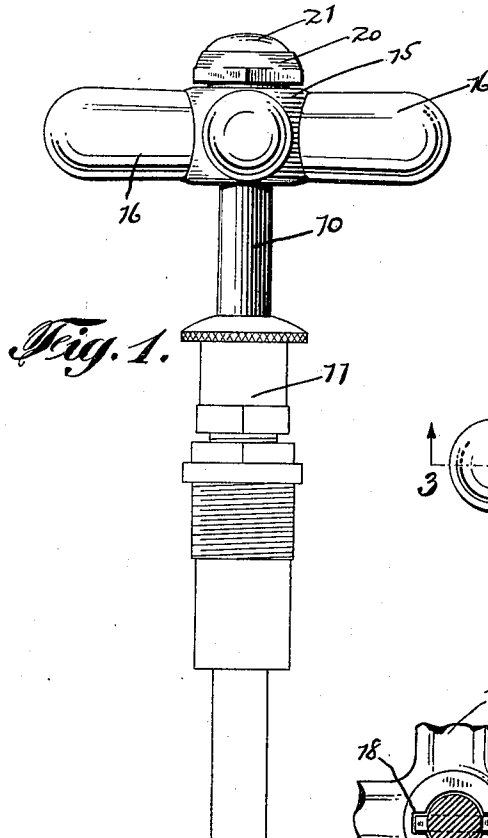
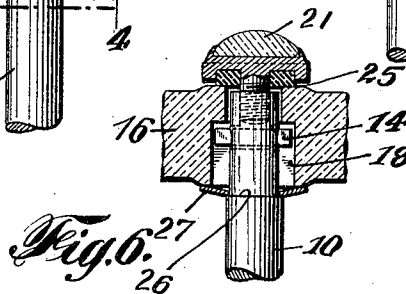
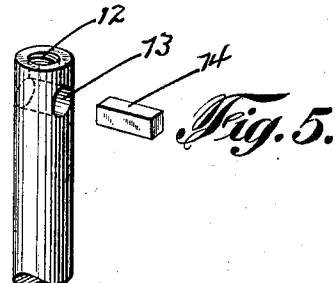
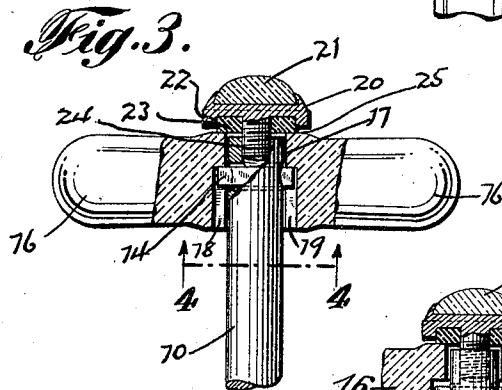
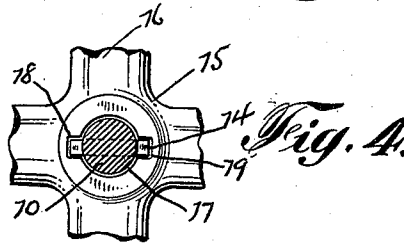
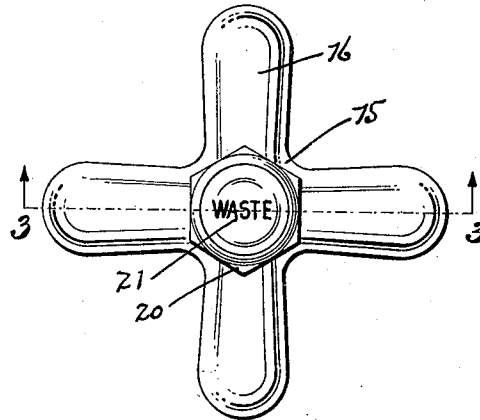


Fig. 2.



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UNITED STATES PATENT OFFICE.

PAUL GILLEN, OF LYNBROOK, NEW YORK, ASSIGNOR TO HUDSON BRASS WORKS IN THE CITY OF NEW YORK, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

PLUMBING FIXTURE.

Application filed March 17, 1923. Serial No. 625,731.

To all whom it may concern:

Be it known that I, PAUL GILLEN, a citizen of the United States, residing at Lynbrook, in the county of Nassau, State of New York, have invented an Improvement in Plumbing Fixtures, of which the following is a specification.

This invention relates to a plumbing fixture and more particularly to means for connecting a handle to a spindle of a valve, faucet, or other similar fixture. It will be understood, however, that while the invention is particularly adapted for this purpose its use is not so limited as the same may be applied with equal advantage in any similar structure. In plumbing fixtures, however, as heretofore constructed, the handle of a valve stem or similar device has been connected thereto by being provided with a socket to receive the end of the spindle and by being cemented in place or secured in position by any suitable adhesive substance. Obvious difficulties have been experienced in the use of handles connected to valve spindles in this manner. The handles are often made of porcelain or composition material and being more or less fragile often break and when broken it is difficult to replace the handle. In setting the fixtures in position also, to avoid the handles being broken, it is necessary to provide the fixtures with the handles unattached causing the plumber to secure the handles in position after the fixtures are set and the walls of the room in which the fixtures are used are completed, and experience has shown that it is almost impossible to set these handles in their intended positions. There are other obvious difficulties in the use of handles of this type, and the object of my invention is to overcome the same.

In carrying out the invention, I employ a handle provided with a bore adapted to receive the end of a valve spindle or similar device, and also adapted to receive means associated with the valve spindle for preventing the handle from turning thereon, together with a device for securing the handle in position by simultaneously engaging the same and the valve spindle, as will be hereinafter more particularly described.

In the drawing:

Fig. 1 is an elevation of a valve spindle and its handle made in accordance with my invention.

Fig. 2 is a plan of the same.

Fig. 3 is a partial longitudinal section.

Fig. 4 is an inverted sectional plan on line 4—4, Fig. 3.

Fig. 5 is a perspective view illustrating the end of the spindle, and

Fig. 6 is a partial central longitudinal section showing another form of the invention.

Referring to the drawing, the spindle of a valve or similar device is indicated at 10. This, as is customary, passes through the gland 11 of the valve so as to turn therein and provide a tight joint. The end of the valve spindle at its free extremity is provided with a tapped opening 12 and a transversely disposed hole 13, which latter is adapted to receive a pin 14 of sufficient length to extend an appreciable distance beyond the spindle when inserted therein, that is the pin 14 is appreciably longer than the diameter of the spindle.

I also employ a handle member preferably comprising a hub 15 and a plurality of arms 16 which may be radially or otherwise disposed, it being understood that the handle may be made of porcelain, metal or a combination of the same or other materials. Centrally the hub 15 of the handle is provided with a transverse bore 17 adapted to receive the end of the spindle and also with oppositely disposed grooves 18 and 19 adapted to receive the projecting ends of the pin 14. I also employ a nut 20. As illustrated, this may be provided with a porcelain or other button 21 having an indicator thereon designating the use to which the valve or other device is applied. The inner face of the nut may also be recessed as indicated at 22 to receive a washer 23 surrounding the screw threaded shank 24 of the nut which is adapted to engage the tapped opening 12 in the end of the stem in such a manner as to cause the washer 23 to frictionally engage the outer face 25 of the hub of the handle and to secure the handle in position on the stem or spindle, by forcing the same against the pin 14 which also, by being engaged in the grooves 18 and 19, as will be understood, prevents the handle from turning relatively to the stem or spindle.

It will be apparent that in the structure as hereinbefore described the connection of the parts in adequately securing the handle in position on the spindle causes the projecting ends of the pin 14 to seat against the ends of the grooves 18 and 19. Such

being the case the connection thus made is positively rigid except for the yielding effect produced by the washer 23. In some instances it may be advisable to provide the handle with a seat against which the same is yieldingly mounted, and a structure of this nature is illustrated in Fig. 6 of the drawing. In carrying out the invention in this manner the stem 10 at a predetermined distance from the free end thereof is provided with a slight shoulder 26 and fitted over the stem I employ a yielding washer 27 made of any suitable material and adapted to bear against the shoulder 26. In this structure the pin 14 acts merely as a key to prevent the handle from turning on the stem and in no instance is permitted to seat against the extremities of the grooves 18 and 19, whereas the washer 27 bears against the inner face of the hub of the handle and the handle is pressed yieldingly against the washer by tightening the nut 20 against the outer face of the hub of the handle.

It will be understood that the parts as hereinbefore described and as illustrated in the drawing are illustrative of one manner of carrying out my invention and that the same may be varied without departing from the nature and spirit thereof.

I claim as my invention:

1. In a faucet or the like, a stem, a handle having a bore therein through which the end of the stem is adapted to extend, means carried by the stem for engaging the handle to prevent the same from turning on the stem, a button adapted to engage the end of the stem, and a washer carried by the button and adapted to contact with the outer face of the handle for coacting with the button to yieldingly maintain the handle in position on the stem.

2. A faucet or the like, a stem, a handle having a centrally disposed bore through which the end portion of the stem is adapted

to extend, means carried by the stem and adapted to engage the handle to prevent the handle from turning on the stem, a yielding washer plate mounted on the stem and adapted to bear against the inner face of the handle, a button connected to the outer end of the stem, and a resilient washer set in the said button and adapted to engage the outer face of the handle whereby through the cooperation of the washer plate, the button and the said washer, the handle is yieldingly maintained in position on the stem.

3. In a faucet or the like, a stem, a handle having a bore therein through which the end of the stem is adapted to extend, a pin passing transversely through the said stem and adapted to engage in recesses provided therefor in the handle to prevent the handle from turning on the stem, a button adapted to engage the end of the stem, and a washer carried by the button and adapted to contact with the outer face of the handle for coacting with the button to yieldingly maintain the handle in position on the stem.

4. In a faucet or the like, a stem, a handle having a centrally disposed bore through which the end portion of the stem is adapted to extend, a pin passing transversely through the said stem and adapted to engage in recesses provided therefor in the handle to prevent the handle from turning on the stem, a yielding washer plate mounted on the stem and adapted to bear against the inner face of the handle, a button connected to the outer end of the stem, and a resilient washer set in the said button and adapted to engage the outer face of the handle whereby through the cooperation of the washer plate, the button and the said washer, the handle is yieldingly maintained in position on the stem.

Signed by me this 19th day of Feby, 1923.

PAUL GILLEN.