Dec. 30, 1924. 1,521,492

F. A. WARREN

PLUMBING INSTALLATION

Filed Feb. 23, 1921

Fig. 3.

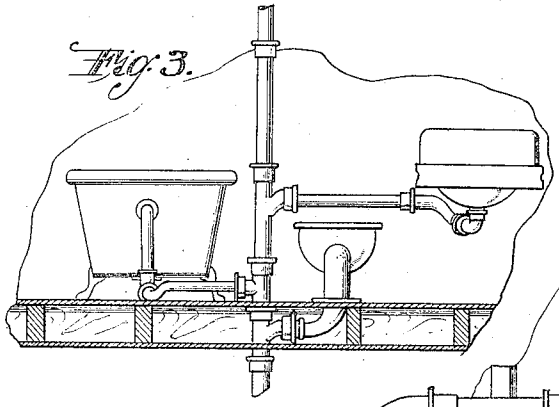


Fig. 4.

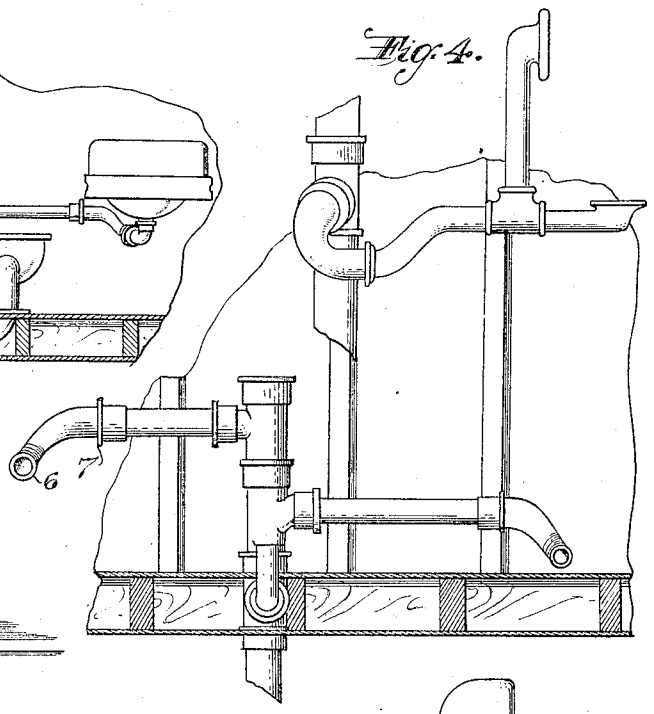


Fig. 5.

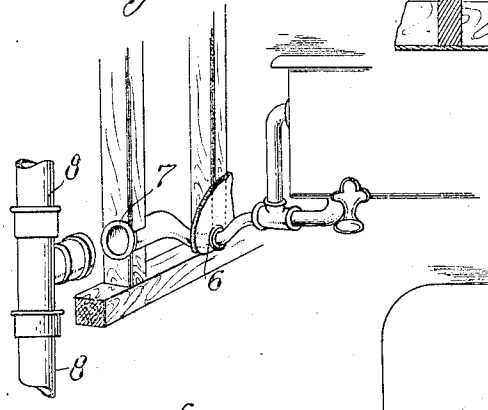


Fig. 1.

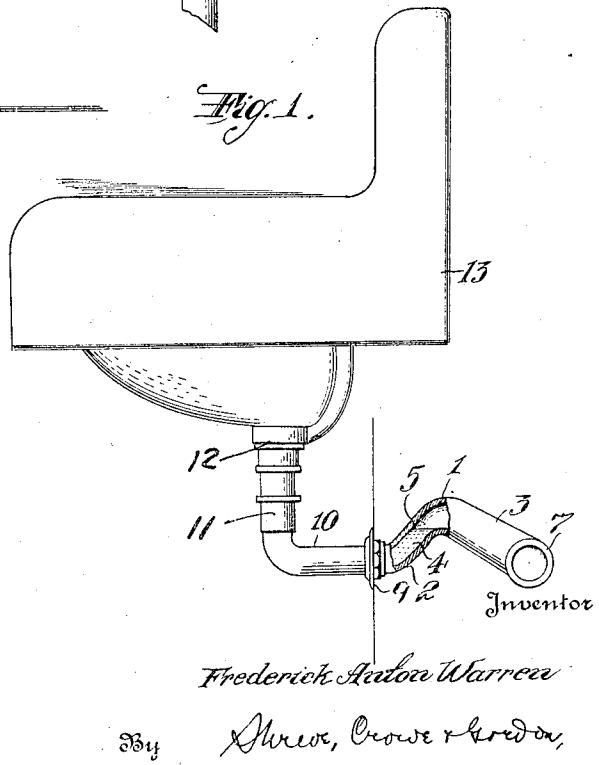
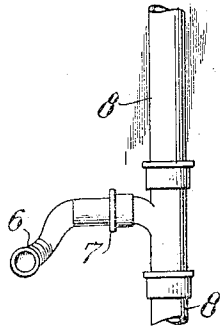


Fig. 2.



Inventor

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Attorney

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UNITED STATES PATENT OFFICE.

FREDERICK ANTON WARREN, OF ATLANTA, GEORGIA.

PLUMBING INSTALLATION.

Application filed February 23, 1921. Serial No. 447,254.

To all whom it may concern:

Be it known that I, FREDERICK ANTON WARREN, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented new and useful Improvements in Plumbing Installations, of which the following is a specification.

This invention generically relates to plumbing installations, more specifically, it is directed to an improved connection designed to function as a water-seal-trap for lavatories and similar fixtures.

The fundamental purpose of this invention is to effect a simple inexpensive plumbing assembly which will expedite and materially decrease the cost of maintenance and installation.

Another object of this invention is to provide a plumbing installation for lavatories and the like, which conceals the trap from view and eliminates unsightly parts ordinarily located beneath the fixture.

With these and other objects in view, this invention consists in certain novel details of construction, combination and arrangement of parts to be more specifically hereinafter set forth and claimed.

Briefly stated this invention consists essentially of two major components, one being concealed in the wall, the other exposed beneath the fixture. The concealed element embodies a malleable casting externally threaded at its inner extremity, bent intermediate its ends to form a water-seal-trap, and flanged at its outer extremity for attachment to a soil or drain pipe; the exposed element consists of a piping or system of pipings establishing a connection between the fixture and the free end of the concealed element.

In the accompanying drawings,

Figure 1 is a side elevation of the complete assembly, illustrating the latter as applied to a lavatory;

Figure 2 is a fragmentary elevation, illustrating the concealed element fixed to a soil or drain pipe;

Figure 3 is a fragmentary side elevation illustrating the application of this improved trap to a three-piece lavatory set;

Figure 4 is a fragmentary side elevation of the connection shown in Figure 7 with the fixtures removed; and

Figure 5 is a fragmentary sectionized perspective illustrating the concealed arrangement of the trap for a bath tub connection.

To facilitate the discussion of this invention, the exposed and concealed elements will hereafter be designated, fixture connection and trap.

Heretofore when making a trap connection between the fixture and the soil or drain pipe, it has been necessary for the operator to unite the several components of the assembly with what is known in the trade as lead joint wipings. This requires a great deal of time, experience and materially increases the cost of installation. It is also necessary to bend a lead stub (which extends from the soil pipe to the trap) at an angle of approximately 90°, which decreases the thickness of its wall, in the vicinity of the bend, and weakens the pipe so that it is readily susceptible to damage. It is, therefore, the aim and purpose of this invention to provide an assembly which dispenses with the lead stub, likewise with the joint wipings, and permits rapid installation with a minimum expenditure of time, labor and material.

In the illustrated embodiment characterizing this invention, reference being had especially to Figure 1, a lavatory installation is shown consisting of a malleable cast iron pipe, gradually increasing in diameter from its inner to its outer end. This pipe, is located in the wall or between the floors of a dwelling and constitutes the water-seal-trap 1. It is formed by bending the pipe upwardly from its inner end as at 2, and laterally from the bent portion as at 3, producing a trap chamber 4 having a liquid level indicated at 5.

The inner end of trap 1 is externally threaded as at 6 to accommodate a ferrule or similar union. The outer end of the trap is formed with a peripheral flange 7, coinciding with the like flange of the soil pipe 8 to which it is caulked.

The threaded or inner end 6 of the trap is connected by a ferrule 9 to the inner end of a connection 10 located beneath the fixture, which in the present instance is bent at an angle of approximately 90°. The upper or free end of this connection is joined by a ferrule 11 to the tail piece 12 of lavatory fixture 13.

From the foregoing structural outline, it is evident the installation proposed by this invention dispenses with the lead stub ordi-

narily required in plumbing constructions of this type (that is to say, the lead pipe extending from the soil pipe to the trap) eliminates joint wiping and presents a trap having a wall of uniform thickness not readily damaged when subjected to undue stress, and places the water-seal of the trap adjacent to the vent-line, thus affording better ventilation than would otherwise prevail.

Aside from the features noted is also manifest this invention by virtue of its simplicity will expedite installation and effect a marked saving in time, labor and material.

In the discussion of this invention two extremely simple lavatory fixtures have been referred to. It is to be understood, however, this improved trap is applicable to the more complex multiple arrangements, including lavatory, toilet and bath, the connections essential to assemblies of this character being shown in Figures 3, 4 and 5 in which event the saving in material, time and labor is greatly increased owing to the several parts eliminated and the many joint wipings dispensed with.

Although in the foregoing, certain elements may have been set forth as best adapted to perform the functions allotted to them, nevertheless, it is to be understood that various minor changes as to form, substance, etc., may be resorted to within the scope of the appended claim without departing from or sacrificing any of the principles of this invention.

Having thus described my invention, and without enumerating variations and equivalents, what I desire protected by Letters Patent is as set forth in the following claims:

In a plumbing installation, a trap member consisting of a one-piece malleable casting pipe flanged at one end for attachment to a soil pipe and threaded at its opposite end for attachment to a fixture connection the bore of said pipe gradually increasing in diameter from its threaded end to its flanged end and said pipe being bent intermediate its ends to provide a vertically disposed trap portion from which the opposite ends of the pipe extend horizontally in relatively right angular relation and in vertically spaced horizontal planes so that the outer or flanged portion of the pipe is above the inner or threaded end of the pipe for effecting a trap and for positioning the crown of the trap nearer to the soil pipe.

FREDERICK ANTON WARREN.

Witnesses:

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SCOTT CANDLER.