T. H. FERRIS.

PLUMBING FITTING.

APPLICATION FILED OCT. 19, 1916.

1,273,471. Patented July 23, 1918.

Fig. 1.

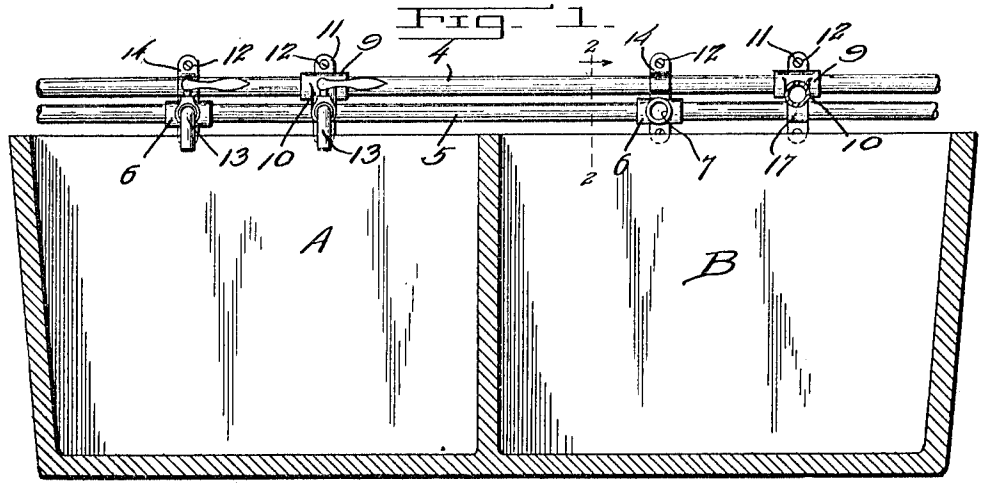


Fig. 5.

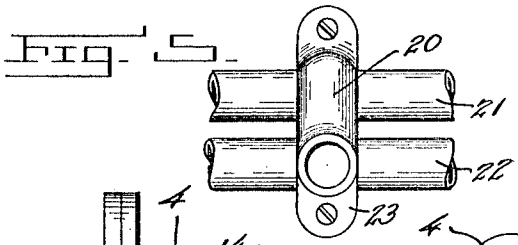
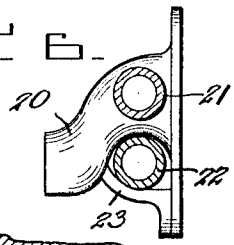
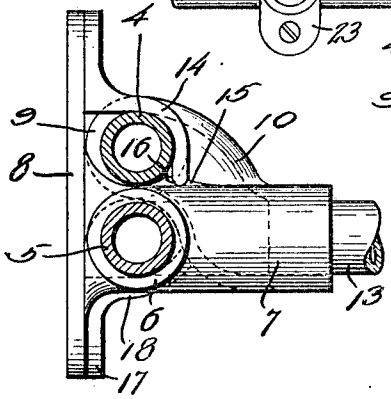


Fig. 6.





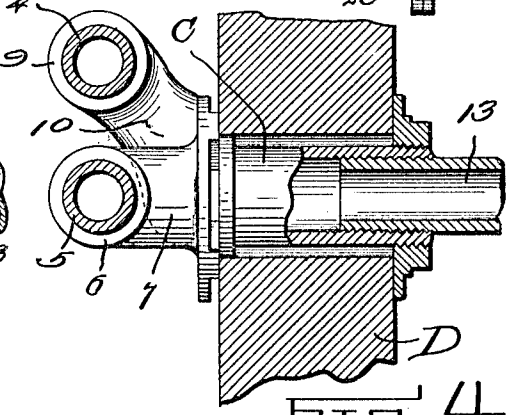


Fig. 2.

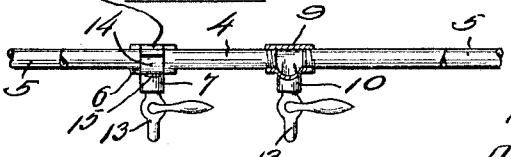


Fig. 4

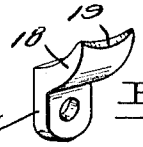


Fig. 2a.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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PLUMBING-FITTING.

1,273,471. Specification of Letters Patent. **Patented July 23, 1918.**

Application filed October 19, 1916. Serial No. 126,581.

To all whom it may concern:

Be it known that I, THOMAS H. FERRIS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Plumbing-Fittings, of which the following is a specification.

My invention relates to a plumbing fitting and a structure especially applicable where a plurality of spigots or faucets have outlets in the same horizontal plane and empty into a single receptacle common to them, and from a practical standpoint, for instance, say into a stationary wash-tub, a sink, or a bathtub; and also where relatively close supply pipes are used, having different sources of supply, and having outlets in the same horizontal plane.

At the present time, in plumbing fixtures having the two faucets or spigots with outlets in the same horizontal plane, the supply pipe must be of bendable or flexible material or metal, usually lead, since both pipes have to be bent to permit attachment to the spigots and to permit each to occupy essential space. This construction therefore renders the employment of lead or similar pipe essential and as well permits stagnant water to remain in the supply pipes as the pipes are at some locations substantially corrugated as a result of the bending referred to.

This invention primarily aims to provide a fitting enabling the usual iron or other non-bendable pipe to be used and as well to provide a construction from which the water will effectively drain, thereby preventing freezing and bursting of the pipes in winter time, when water is turned off.

The above objects I attain by employing substantially straight supply pipes to which the spigots or faucets are directly connected, therefore being out of horizontal alinement, but one of them having its nozzle extending downwardly and terminating in the same planes as the other nozzle of the remaining spigot or spigots or faucet. I further aim to provide a means whereby each pipe may be rigidly joined or clamped to the outlet fitting of the other pipe. Additional objects and advantages will appear hereinafter as the description progresses with relation to accompanying drawings wherein one preferred embodiment is illustrated.

In said drawings:

Figure 1 is a view showing my improvements associated with a double stationary washtub, the latter being shown in vertical section, and the faucets or spigots for one of the tubs being removed;

Fig. 2 is a cross sectional view through my improved fitting only on the line 2—2 of Fig. 1;

Fig. 2^a is a detail perspective view of one of the clamping straps used;

Fig. 3 is a fragmentary view partly in plan and partly in section;

Fig. 4 is a view similar to Fig. 2 but being taken through a modified form;

Fig. 5 is a fragmentary front elevation showing a modified form of fitting and pipe fragments, and

Fig. 6 is an end view of the parts of Fig. 5.

Referring specifically to the drawings and first to the device illustrated in Figs. 1 and 2, a double stationary washtub is shown in Fig. 1 of which the tubs may be designated A and B. While a double tub has been shown, it is to be understood that the invention is capable of use with a single tub, and further that the tub illustrated is only conventional of the class of plumbing fixtures into which two faucets empty, for instance one connected with a source of cold water supply and one connected with a source of hot water supply.

The water supply pipes are shown at 4 and 5 being disposed above the tubs. Pipes 4 and 5 as usual are made in sections and are screw threaded into the couplings 6 and 9. These pipes are usually fastened to a wall, but may be fastened to any suitable support. It will be noted that these pipes are straight and parallel as distinguished from the supply pipes ordinarily used with fixtures of the type described as they are much bent and corrugated of necessity, in effecting connection with the spigots or faucets. As a result of my construction, these pipes 4 and 5 may be made of iron or another non-bendable metallic pipe, as distinguished from lead,

the material from which the present pipes are made.

T-shaped couplings 6, one for each tub, are connected to the pipe 5 and each has a forwardly projecting nozzle at 7. Integral with the couplings 6 are tangs 8, which preferably extend farther above than below the nozzle 7 or median line of the pipe 5.

Numerals 9 designate T-shaped couplings, one for each tub, being connected to the pipe 4. The nozzles of the couplings 9 are shown at 10, being integral with the remainder of the coupling and extending downwardly and forwardly so that their outlets, will be in the same vertical and horizontal planes. Integral with the couplings 9, are tangs 11, similar in shape to the tangs 8, but preferably extending farther below the line of connection of the couplings 9 than above said line. As a result of the offset connections of the tangs with the couplings 6 and 9, a more symmetrical appearance will be presented when the couplings are fastened in place. Suitable screws or other fastening elements may be passed through the openings 12 of the tangs 8 and 11 in order to fasten the tangs to a wall or other support. Since these tangs support the couplings, and the couplings in turn support the pipes 4 and 5, the screws or fastenings referred to may be the only means used for fastening the fittings in place. The faucets or nozzles designated 13 may be screwed into the nozzles 7 and 10 of the couplings as shown.

Preferably the pipes 4 and 5 are secured in rigid relation with the couplings 6 and 9. To this end, pipe 4 rests on the coupling 6 while the pipe 5 abuts the coupling 9. Straps 14, partly overlapping the pipe 4 are provided, being secured as by certain of the fastening members 12, to the tangs 8 and to the wall or other support. The lower end of the straps or clamps 14 engage suitable abutment means at 15, integral with nozzle 7. This abutment means comprises preferably two ridges extending transversely of the pipe and providing a groove 16 intermediate them into which the clamp extends. A strap 17 is fastened to the tangs 11, by others of the fastening members 12 and as well by said fastening members, to the wall or other support. The straps have a clamping or overlapping portion 18 to engage the piping 5. The upper terminal of the portion 18 as specifically shown in Fig. 2[a] is arcuate as at 19. As seen by the dotted lines in Fig. 2, the upper portion of this strap or clamp 18 terminates above the lower extremity of the nozzle 10 and therefore the arcuate notch 19 snugly fits the nozzle at this point and is prevented from turning or other movement from its fastening element 12. Therefore in this form it is unnecessary to provide the abutment or groove means. This construction provides a very rigid connection of the two pipes to each other and to the couplings.

As a result of my construction, the pipes 4 and 5 as hereinbefore suggested, may be of iron or other non-bendable metal used for piping. The pipes are fastened in parallelism and it is not necessary to bend them as in the case of lead pipes screw threaded into the couplings 6 and 9.

Although the couplings 6 and 9 are connected to the pipes out of the same horizontal plane, yet their nozzles 7 and 10 are so formed that they both end in the same horizontal plane whereby the faucets 13 may be detachably screwed thereto, occupying positions in the same vertical plane with their outlet ends at the nozzles in the same horizontal plane. When the couplings are fastened, the upper ends will lie in the same horizontal plane while the lower ends will lie in the same horizontal plane, thus adding to the symmetry of the fitting. These tangs serve the dual function of fastening the couplings to a wall or other support and as well of fastening the pipes to the support.

The draining feature of the present invention is particularly emphasized, since this is not attained by present constructions. As described, the nozzle 10 extends downwardly and forwardly and there are no bends in which water may remain, when the water supply to the pipes 4 and 5 is shut off and the spigots or faucets opened to permit thorough drainage of said pipes. Thus water will not remain in the pipes and freeze; hence the danger of bursting is overcome. One pipe preferably leads from a source of hot water supply while the other preferably leads from a source of cold water supply.

While I have shown the preferred embodiment in Figs. 1 and 2, yet I do not limit myself to that construction since changes may be made without departing from the spirit and scope of the invention. For instance the modified form illustrated in Fig. 4 may be used. In this figure, the faucet or spigot may be connected to the nozzles 7 and 10 by the improved form of coupling illustrated and claimed in my pending application, Serial Number 123,577, filed October 2, 1916, for improvements in a coupling device. This form of coupling is generally referred to as C. Since it is described and claimed in said pending application, it is unnecessary here to again specifically describe it. It may be said, however, that the couplings are rigidly and directly secured to the back or other wall D of a tub or other fixture.

Another modification is illustrated in Figs. 5 and 6. In this form, the nozzle 20 equivalent to the nozzle 10 has one supply pipe passing directly therethrough. This

supply pipe is designated 21 and is the equivalent of pipe 4. The equivalent of pipe 5 is designated 22 and this contacts with the under surface of nozzle 20 and is clamped thereagainst by means of a strap 23 of the same construction as that shown in Fig. 2ª.

I claim:

1. In a plumbing fitting, in combination with a plurality of substantially alined supply pipes, outlet means leading from each pipe, a tang on the supply means of the lowermost pipe extending below the lowermost pipe but a greater distance above it, a tang on the uppermost pipe extending above the uppermost pipe but a greater distance below it, and the ends of said tangs lying in parellel lines.

2. In a plumbing fitting, the combination with a receiving member, and a plurality of substantially alined supply pipes therefor, said supply pipes being substantially straight, a coupling for each pipe connected directly thereto, a tang integral with each coupling, the tang of one coupling extending farther above than below its pipe, and the tang of the other coupling extending farther below than above its pipe, the ends of said tangs lying in substantially horizontal parallel lines, a nozzle extending from one of the couplings, a nozzle extending from the other coupling downwardly and forwardly and terminating in the same horizontal plane with the termination of the other nozzle, and faucets extending from said nozzles.

3. In combination with first and second supply pipes, a fitting member for the first pipe, a tang for said fitting member, the second pipe contacting with said fitting member, a strap member extending from the tang, and one of said members being provided with a groove to receive the other member.

4. In combination with a supply pipe, a second supply pipe, the second supply pipe being disposed above the first supply pipe, an outlet nozzle extending downwardly from the first supply pipe, a clamping strap to extend across the first supply pipe, a fitting for the first supply pipe, means to secure said strap to the fitting and said strap having a cut out portion to enable it to fit the nozzle and prevent movement relatively to its fastening means.

5. In a plumbing fitting, in combination with a plurality of substantially alined supply pipes, outlet means leading from each pipe, a tang on the supply means of the innermost pipe extending below the lowermost pipe but a greater distance above it, a tang on the uppermost pipe extending above the uppermost pipe but a greater distance below it, the ends of said tangs lying in substantially parallel planes, a clamping strap extending in one of said tangs overlapping one of said pipes, one of said outlet means having abutment means coöperating with said strap, a second strap, said second strap extending from the other tang and overlapping the other pipe and said second strap having a cut out portion to engage the other outlet means for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS H. FERRIS.

Witnesses:
RICHARD B. OWEN,
SELINA ALPERT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."