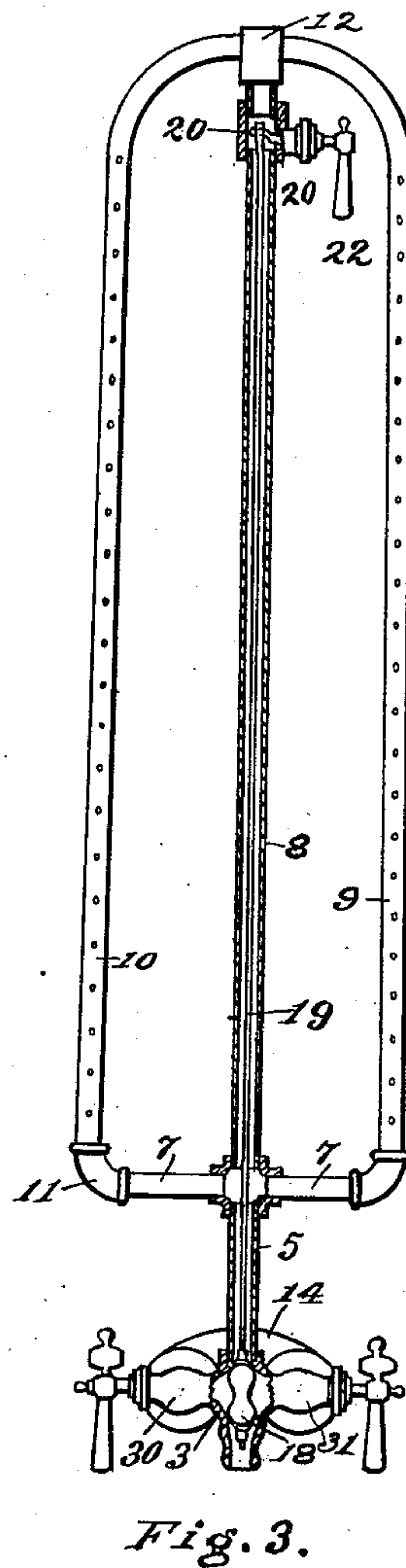
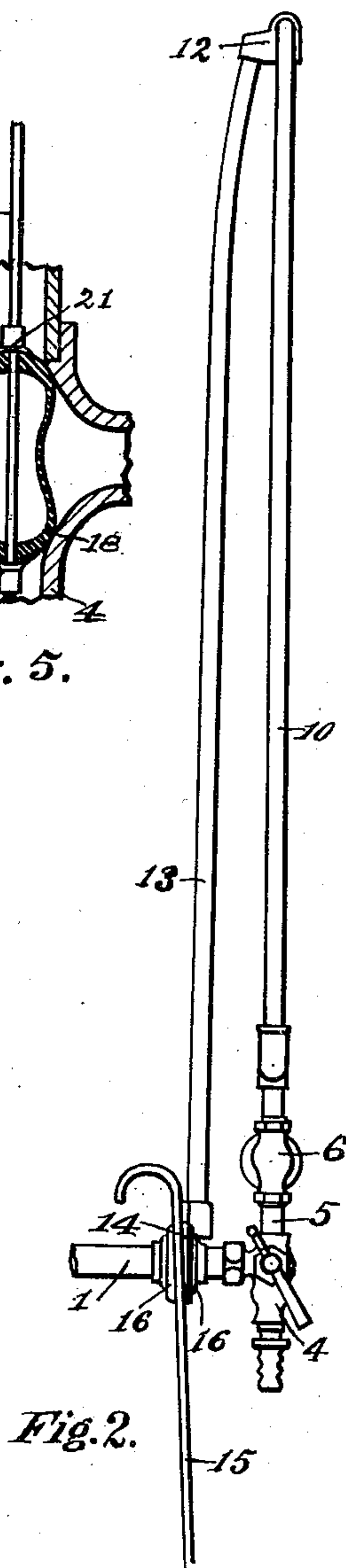
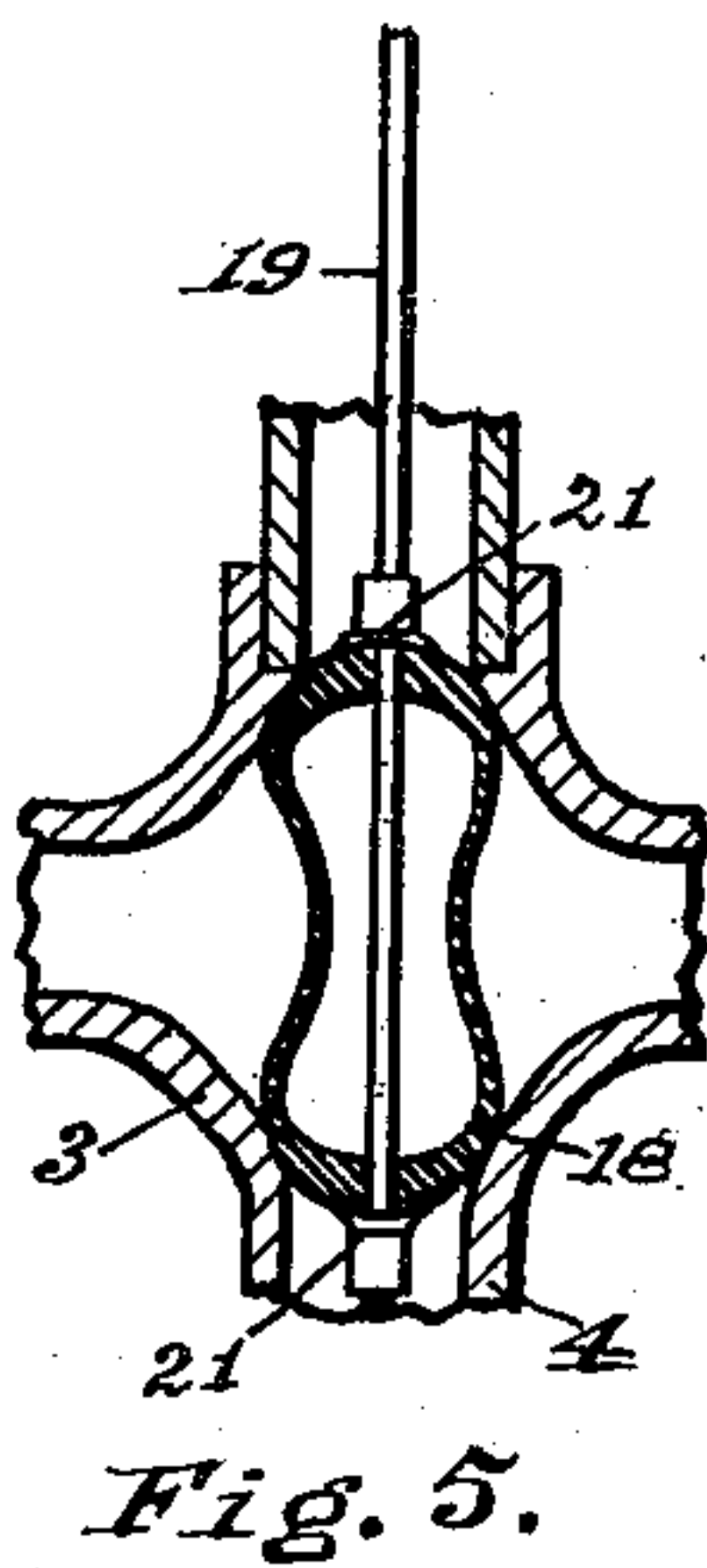
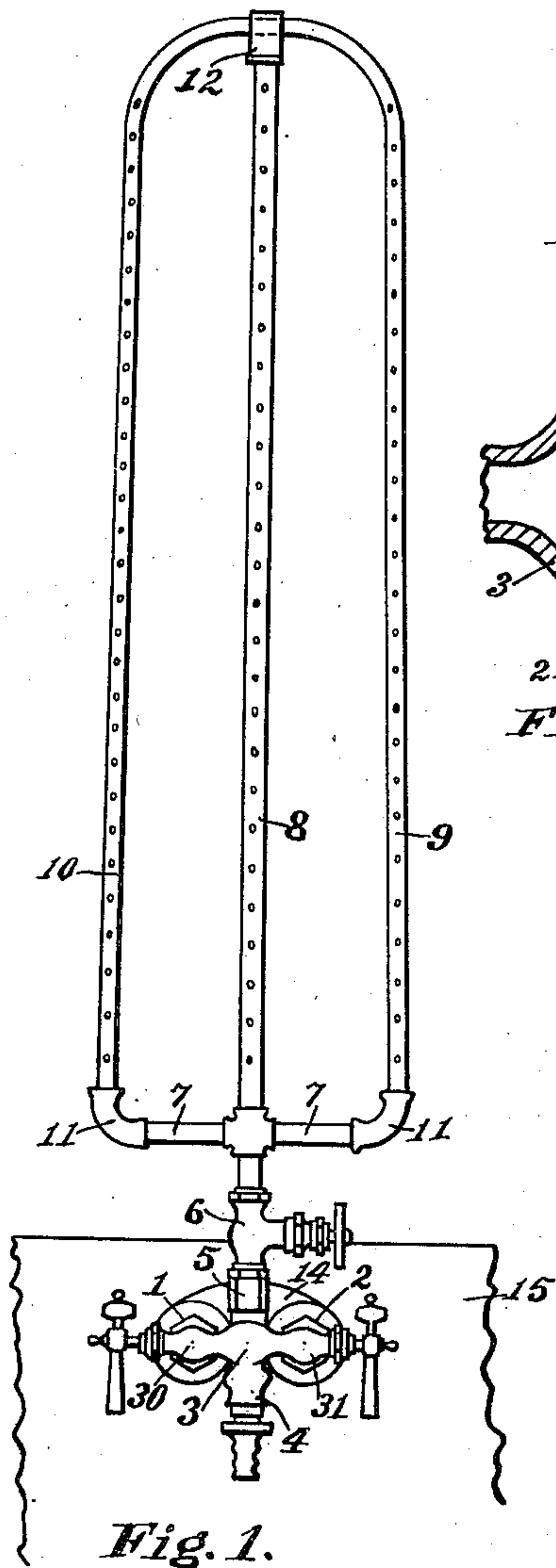


W. E. HOLMES.  
 SPRAY OR NEEDLE BATH DEVICE.  
 APPLICATION FILED APR. 23, 1908.

944,611.

Patented Dec. 28, 1909.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM E. HOLMES, OF SEATTLE, WASHINGTON.

## SPRAY OR NEEDLE BATH DEVICE.

944,611.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed April 23, 1908. Serial No. 428,874.

*To all whom it may concern:*

Be it known that I, WILLIAM E. HOLMES, a citizen of the United States, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Spray or Needle Bath Devices, of which the following is a specification.

My invention relates to an improvement in attachments for bath tubs which will produce a spray or needle bath, and comprises the novel parts and combinations of parts hereinafter described and particularly pointed out in the claims.

The object of my invention is to produce an attachment for bath tubs which may be applied thereto in such a manner as to be, to all intents, a permanent fixture, that is, so as to be ready for use at all times without having to do any material amount of adjusting or connecting of parts, but which may be readily detached when desired, as for instance, when moving from one location to another. In other words the device is an attachment applicable to ordinary bath tubs and is not a permanent fixture.

In the accompanying drawings I have shown my device embodied in the forms which are now preferred by me.

Figure 1 is a front elevation of my device in place. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation of my device in place but having a modified controlling valve. Fig. 4 shows a plug for closing the usual discharge opening. Fig. 5 is a section showing the controlling valve of the type used in Fig. 3.

My spray or needle bath device is designed for attachment to a bath tub in such a permanent manner that it may be left in position for repeated use, and yet may be readily detached and applied to another tub when desired.

It is my purpose to provide what is strictly an attachment, that is a device which is removable at will, and which will not become a part of the permanent plumbing fixtures, at least to the extent of belonging to the house, but may be applied for the time being in a permanent manner by a tenant and moved by him from one house to another as he may change his residence. In doing this it is my purpose to use the permanent bath tub fixtures as largely as possible.

While my device is designed primarily as an attachment, there is no reason why it may

not be applied and constructed as a permanent fixture if this should ever be desired. For such use it possesses advantages of economy of construction and convenience of use.

The salient features of my device comprise a perforated pipe or pipes extending vertically above and having supply connection with the permanent bath tub fixtures through which water is supplied to the tub, such perforated pipes being fixedly supported at the end of the tub and their discharge being horizontal and over the tub.

The type of fixture with which I prefer to connect my attachment is that type which is commonly called a combination or double bath cock, that is, one that has a common discharge for both hot and cold water. With such a fixture I make connection with the mixing chamber, or that portion in which the hot and cold waters are mingled. This connection may, theoretically, be at any point outwardly from the controlling valves. I am thus able to employ the existing hot and cold water valves to regulate the temperature of the water flowing through my device by closing, in any suitable way, the usual discharge opening from the bath cock.

In the drawings 1 and 2 represent the usual hot and cold water conductors leading through the walls of the tub. These are both connected with the mixing chamber 3 through their respective valves 30 and 31. The common discharge of water is through the central nipple or faucet 4. These parts constitute an ordinary combination bath cock.

The supply pipe 5 for my fixture, is connected with the upper side of the same mixing chamber. In this pipe may conveniently be placed a valve 6 by which the flow of water to the spray attachment may be controlled. In Fig. 3 I have shown a corresponding valve 18 as located at the point of union of the pipe 5 and the bath cock. This valve may be located wherever desired so that it controls the flow of water through the attachment. The exact form or type of water discharging members used in my device is largely immaterial. The form now preferred by me for general use is that shown, consisting of vertical pipes perforated in their sides which are next to the tub. I also prefer to use a plurality of these pipes and to have them separated horizon-



tally so as to somewhat distribute or spread the source from which the spray comes. I secure these results by providing lateral branches 7, from the supply pipe 5, each of which connects with a perforated pipe 9 or 10. As a convenient feature of construction both these pipes may be parts of a continuous pipe bent upon itself so as to resemble an inverted U when in place. A central perforated pipe 8, forms an upward extension of pipe 5, and lies midway between the arms 9 and 10 of the inverted-U-shaped pipe. I prefer to supply a brace or support for these pipes, the same as shown consisting of a rod or tube 13, which, at its upper end, is secured to a casting or block 12, constituting a junction member which unites the various parts securely together at their upper ends. Through this junction member the pipe forming the side members 9 and 10 passes. The upper end of the central pipe 8 is preferably closed in any suitable manner; the manner shown in the drawings is by screwing it into a closed pocket or recess in the junction member 12.

The lower end of rod 13 is supported from the bath tub, preferably by screwing into a boss carried by a plate 14 which has holes in it through which pass the conductors 1 and 2 which form part of the combination cock and carry the hot and cold water thereto, said plate being clamped to the tub wall by the nuts and washers 16 commonly employed to hold the pipes 1 and 2 in place. In this way the brace 13 is secured by the same means used to secure the bath cock in place. Where, as is usually the case, the tub walls are inclined from the perpendicular, the plate 14 may be thicker at the top than at the bottom, thus compensating for this inclination and holding the rod 13 either vertical or at any incline desired. This method of bracing holds the spray pipes firmly.

In Fig. 3 I have shown a modification differing from that described and shown in Figs. 1 and 2 by using another form of valve for controlling the supply of water to the attachment. In this the valve operating mechanism is of that form used to operate what is known in the trade as the "Fuller" valve, the valve however being a modification of the same. In this type the valve is operated by an eccentric arm 20 and a connecting rod 19. The valve 18 is placed within the mixing chamber 3 and is double, seating at top and bottom so as to close the flow in either or both directions. This valve is of soft rubber and hollow, the ends being heavy and the central or waist portion being thinner so that it may be collapsed when either end is pulled off its seat. The rod 19 extending thereto from the eccentric arm 20, passes lengthwise entirely through the valve 18, and is provided with washer and adjust-

ing nuts 21 outside of each end of the valve. Throwing the valve operating handle 22 in one position will raise the lower end of the valve and permit flow of water through the lower opening. Throwing the handle oppositely will depress the upper end of the valve and permit flow of water to the spray device, while a middle position will permit expansion of the valve waist so that both outflow openings are closed. The rod 19 which connects the valve with its handle extends upward within the pipe 8 and is controlled and operated by a crank or eccentric upon the inner end of the stem which carries the handle 22, said parts being located at the upper end of the pipe 8. This expedient places the valve handle entirely above the discharged jets so that the valve may be controlled without necessarily wetting the head or hair. The water discharged by the attachment may be prevented from falling without the tub by using a curtain extending about the margin of the tub and hanging within the same. For the elbows 11 valves may be substituted, which enables the side pipes being cut out if desired.

The special valve 18 is the preferred way of controlling the direction of flow out of the mixing chamber. When this feature is omitted, as shown in Figs. 1 and 2, the downward discharge into the tub may be closed in any suitable way, as by a screw plug, such as is shown in Fig. 4, if, as is usual, this discharge opening is threaded. It may also be closed by a cork or plug of any other suitable material or construction.

Such a device as this may be made at slight expense for material other than that usually applied to bath tubs, and may be attached to bath tub fixtures already installed and may be readily removed and applied to another tub should the owner change residence. It enables the benefits of a spray or needle bath to be obtained at slight additional cost.

What I claim and desire to secure by Letters Patent is:

1. The combination with the hot and cold water pipes in a bath-tub, and the combination fixture attached thereto, of a bracket carried by said pipes intermediate the tub and fixture, and a needle shower attached to and supported by the bracket.

2. The combination with hot and cold water pipes in a bath-tub, and the combination fixture therefor, of a bracket carried by said pipes within the tub, and a vertical needle shower attached to and supported by said bracket and having its supply-pipe in communication with the mixing chamber of the fixture.

3. In a spray or needle bath device, in combination, perforated pipes, a combination bath cock, said pipes having a rigid water supply connection supporting them



above the bath cock, and a brace for said pipes secured to the tub by the same means used to secure the bath cock in place.

4. In a spray or needle bath device, in combination, a perforated vertical pipe, a perforated, inverted-U-shaped pipe, connections between said pipe at their lower ends, and a water supply and supporting pipe for said perforated pipes adapted for connection with the cock of a bath tub.

5. A spray or needle bath device having an inverted-U-shaped pipe, a pipe lying between the arms of the other pipe, said pipes being perforated to discharge at one side, a water supply connection between said pipes at their lower ends and a bath cock, a junction member having supporting connection with said pipes at their upper end, and a brace connecting said junction member and the bath tub.

6. A spray or needle bath device having an inverted-U-shaped pipe and a pipe central of said "U," said pipes being perforated

upon one side, means for connecting said pipes at their lower ends with a bath cock, a junction member to which the upper end of the central pipe is secured and through which the U-shaped pipe passes, and a brace secured to said junction member and the bath tub.

7. In a spray or needle bath device, in combination, perforated pipes, a combination bath cock, said pipes having a water supply and supporting connection with said bath cock and extending upwardly from said cock, and a brace having supporting connection between said perforated pipes and the water supply pipes within the bath tub.

In testimony whereof I have hereunto affixed my signature at Seattle, Washington, this 3rd day of April, 1908, in the presence of the subscribing witnesses.

WM. E. HOLMES.

Witnesses:

H. L. REYNOLDS,  
EARL YOUNG.