Aug. 29, 1933. A. C. BROWN ET AL 1,924,771

COMBINATION BATH FIXTURE

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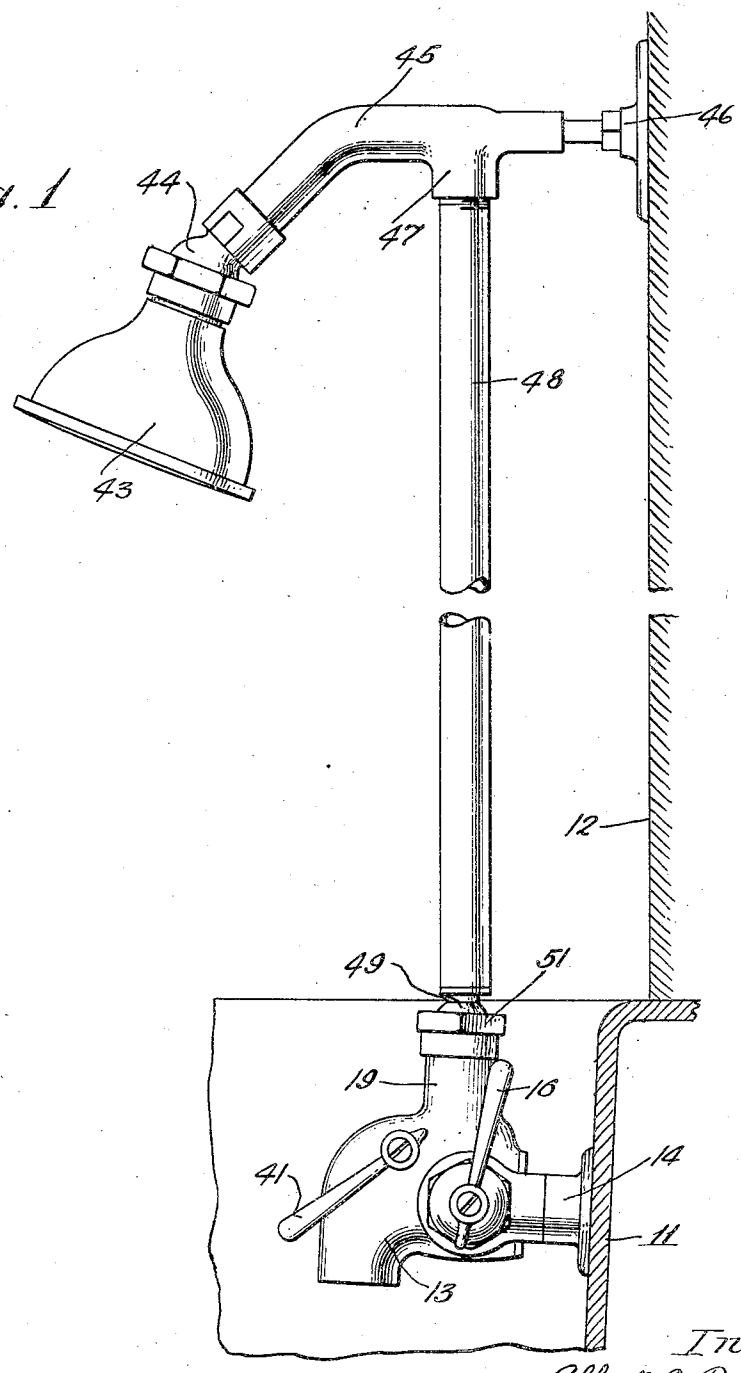
Fig. 1



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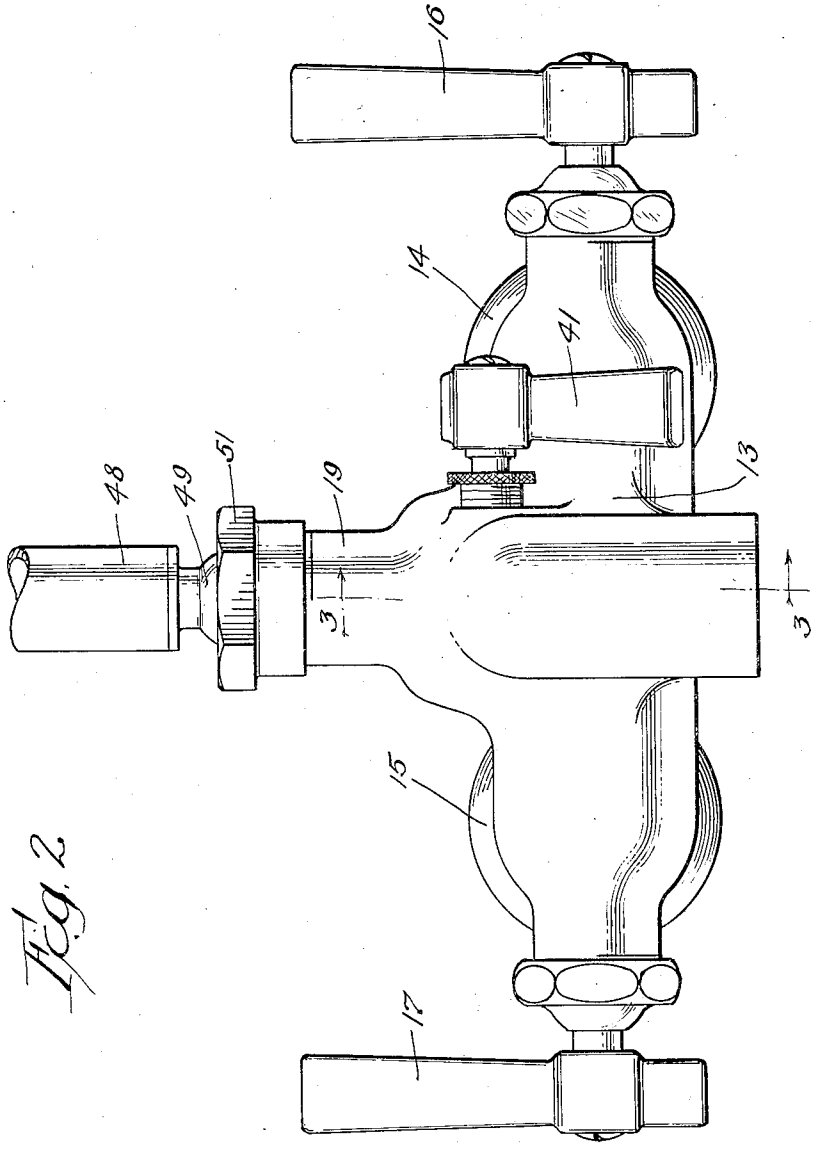

Fig. 2.

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Fig. 3

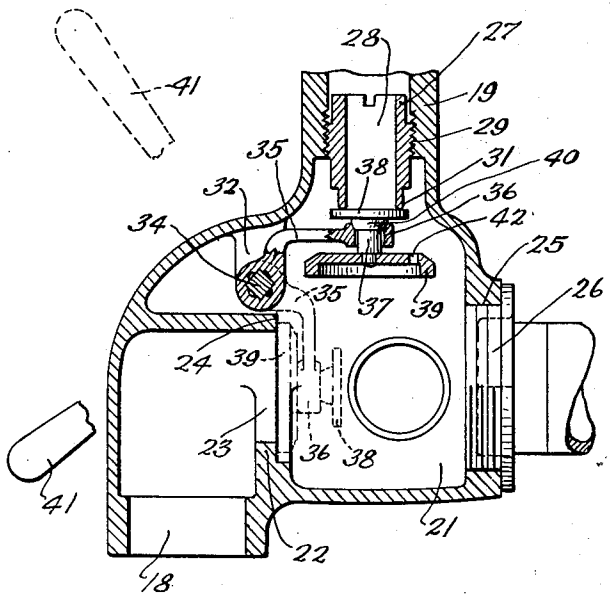
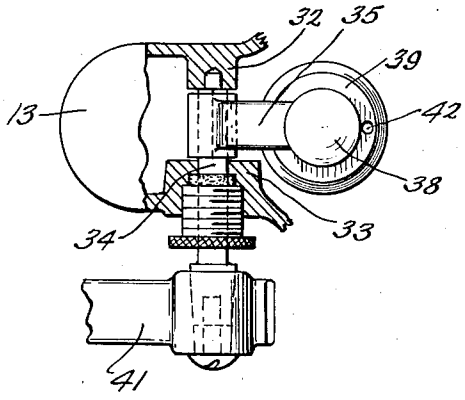


Fig. 4



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UNITED STATES PATENT OFFICE

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COMBINATION BATH FIXTURE

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4 Claims. (Cl. 4—148)

This invention relates in general to combined bathtub spout and shower assemblies but has more particular reference to devices of this sort wherein a single valve is employed to optionally direct the tempered water from the spout into the bathtub or through a shower head located thereabove.

A principal object of the invention is the provision of a combined bath fixture of the character described of improved and simplified construction and in the use of which both the outlet to the spout and the outlet to the shower will be positively and fully closed, and this through a simple angular manipulation of a single control handle.

Another and highly important object of the invention is the provision of a fixture of this character which may be readily installed in substitution for the ordinary and usual mixing bath faucets now generally in use, and this without the necessity of reformation or relocation of the parts.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a side elevation of a combined spout and shower fixture embodying my invention and showing the same installed in a bathtub of usual general construction;

Fig. 2 is an enlarged front elevation of a faucet body and associated parts;

Fig. 3 is a section taken substantially on the line 3—3 of Fig. 2; and

Fig. 4 is a fragmentary detail plan, parts being shown in section.

For the purpose of illustrating the present invention, we have shown on the drawings a portion of a tub wall 11 arranged adjacent to and beneath a wall 12 of the bathroom. Reference character 13 indicates the body of a combination fixture and this is or may be of the usual or preferred general shape and configuration heretofore employed to mix the hot and cold water for delivery to the tub.

At the ends of the body, supply connections 14 and 15 are provided to introduce respectively the cold and hot water into the fixture body to provide the desired tempering. These supply connections provide inlets for the hot and cold water into the body 13. Usual valve (not shown) are provided and these valves are or may be controlled in the usual manner by faucet handles 16 and 17.

The body is provided centrally of its length with the usual spout 18 adapted to deliver the tempered water into the tub and it is provided also with a shower delivery part 19 extending up from the mixing chamber 21 of the body 13. A partition 22 is vertically arranged back of the spout 18 and is provided with a spout outlet 23 about which and on the side of the mixing chamber is arranged a valve seat 24. An opening 25 is provided diametrically behind the valve seat 24 and through the faucet body to permit accurate shaping and finishing of the valve seat 24 and this opening 25 is adapted to be closed by a screw plug 26 after assembly.

A plug 27, having a central bore 28 and external threads 29, is arranged through shower delivery part 19 and is provided at its bottom with a valve seat 31.

The bore 28 may be considered, as will be presently more fully explained, the outlet to the shower head and it will be apparent that the outlet 23 to the spout and this outlet 28 to the shower head are angularly arranged with respect to each other and with their axes in the same vertical plane. A valve member or mechanism is provided to swing from a position closing one of said outlets into a position closing the other one. Two bosses 32 and 33 are formed within the body and above the valve seat 24. A pivot member or pin 34 is arranged to extend through the boss 33 and have bearing in the boss 32. This pivot member intermediate the bosses is preferably of square or non-circular cross-section and an arm 35 is fitted upon it to turn with the pivot pin in its movement. This arm preferably is of the angular shape shown in Fig. 3 and is provided at its free end with a bore 36 through which extends the central stem 37 of a double valve member composed of a valve disc for engaging the valve seat 31 and a valve disc 39 for engaging the valve seat 24. The connection between the stem 37 of the valve member in the bore 36 of the arm 35 is preferably a loose one to permit the valve discs 38 and 39 to adapt themselves readily to the valve seats. The upper part of the connection 37 is preferably spherical at 40 and a like shape is given the bore 36, this to facilitate seating of the upper disc 38 against its seat.

The pivot pin extends to the outside of the faucet body and is provided with a handle 41 arranged to extend outwardly and away from the valve members. The handle is made heavier than the valve member so that gravity tends to cause the handle to drop and the valve disc 38 to seat and close the shower outlet. When the handle is

lifted to move the valve member down to cause the disc 39 to engage the spout outlet and direct water to the shower head, the pressure of the water holds the parts in the assumed relation and water is delivered from the shower head so long as the valves controlled by the control handles 16 and 17 are left open.

A bleed opening 42 is provided through the valve disc 39 to permit water left in the connections with the shower head when the valves controlled by the handles 16 and 17 are closed to leak out and empty the system so that the valve member automatically and by gravity of handles returns to shower outlet closing position after use. This is believed advantageous since it automatically arranges the fixture for delivery through the spout into the tub and prevents inadvertent turning on of the shower, and since it automatically permits of the tempering of the bath water through the spout before directing it through the shower head.

In the assembling of the parts, the arm 35 and the valve member are first connected together and then the arm and valve member are inserted through the opening 25 and arranged to receive the pivot pin which is then inserted. The plug 27 may be inserted and removed through the part 19.

Reference character 43 indicates the usual shower head connected by a universal joint 44 with a shower arm pipe 45 secured at 46 to the wall of the room above the tub. The shower arm 45 has an inlet indicated at 47 for engagement with a riser pipe 48. This riser pipe is connected at its bottom at 49 in a ball or universal joint 51 with the shower delivery part 19. The ball or universal joint 51 permits the body 13 to assume the angular position required by the inclination of the end wall of the tub without canting the riser and permits therefore the installation of the assembly in substitution for the ordinary tub fixtures generally used.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

We claim:

1. A bathtub fixture, comprising a body forming a mixing chamber and provided with hot and cold water inlets and spout and shower outlets angularly arranged with respect to each other, an arm pivoted for vertical movement in the plane of the axes of said outlets, and a valve member carried by said arm and having seating faces arranged on the opposite sides of said arm to engage respectively each said outlet, the connection between said arm and said valve member being a loose one.

2. A bathtub fixture, comprising a body forming a mixing chamber and provided with hot and cold water inlets and spout and shower outlets angularly arranged with respect to each other, an arm pivoted for vertical movement in the plane of the axes of said outlets, a valve member pivoted within said arm and having valve faces oppositely arranged and operable to alternately close said outlets, and an operating handle connected to said arm for pivotal movement therewith and normally maintaining said valve member in shower outlet closing position.

3. A bathtub fixture, comprising a body forming a mixing chamber and provided with hot and cold water inlets and spout and shower outlets angularly arranged with respect to each other, a valve member pivoted within said body and having valve faces oppositely arranged and operable to alternately close said outlets, and an operating handle connected to said valve member for pivotal movement therewith and normally maintaining said valve member by gravity in shower outlet closing position.

4. A bathtub fixture, comprising a unitary casing providing a mixing chamber and having hot and cold water inlets adapted for attachment to the supply pipes leading to a tub and having spout and shower outlets angularly arranged with respect to each other, both said inlets and said shower and spout outlets communicating directly with said mixing chamber, a valve mounted within said mixing chamber and alternately operable to close said spout and shower outlets, and an operating handle fixed to said valve and forming a counterpoise weighted to arrange said valve in shower closing position.

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