

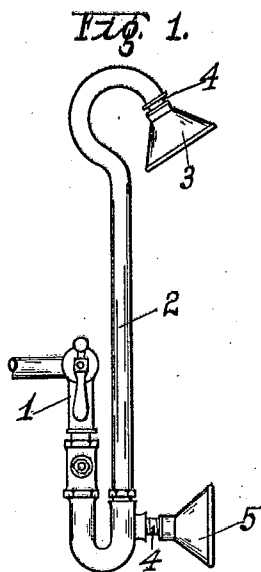
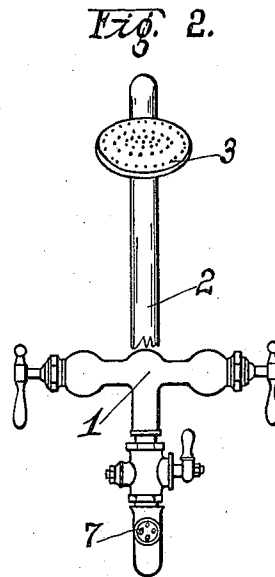
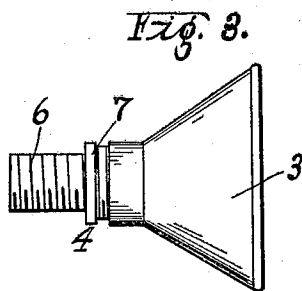
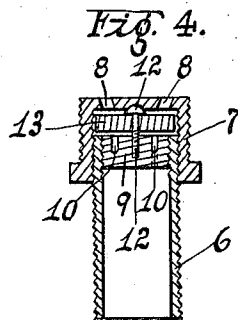
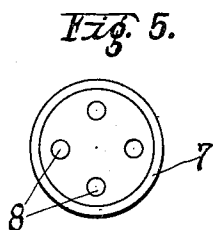
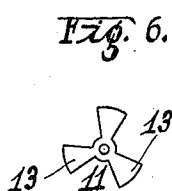
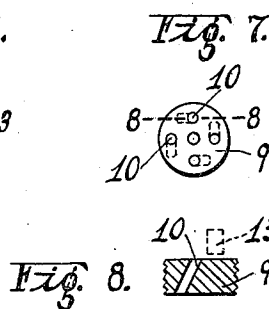
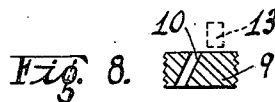
Feb. 27, 1923.

1,446,887

J. J. DONOVAN

BATH SPRAY

Filed Aug. 31, 1920



Inventor

Jerome J. Donovan.

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UNITED STATES PATENT OFFICE.

JEROME J. DONOVAN, OF OAKLAND, CALIFORNIA.

BATH SPRAY.

Application filed August 31, 1920. Serial No. 407,133.

To all whom it may concern:

Be it known that I, JEROME J. DONOVAN, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Bath Sprays, of which the following is a specification.

My invention is a pulsating and intermittent bath spray.

My invention is illustrated in the annexed drawing which forms a part of this specification.

Referring to the drawing:

Figure 1 is a side elevation of a bath spray embodying my invention.

Figure 2 is a front elevation of said bath spray.

Figure 3 is an enlarged side view of the spray head and union for coupling the head to a spray fixture.

Figure 4 is a longitudinal section of said union.

Figure 5 is an outer end view of the cap member of said union.

Figure 6 is a plan view of the rotary interrupting valve wheel.

Figure 7 is a plan of the plug which screws into the end of the sleeve member of said union.

Figure 8 is a cross section of said plug taken on line 8—8 of Fig. 7.

In the drawing, 1 indicates a hot and cold water faucet to which is connected a bath fixture 2. A spray head 3 is coupled to the upper goose-necked end of the fixture 2 by a union 4 and a spray head 5 is connected to the lower part of the fixture also by a union 4. Each union includes an externally

threaded sleeve 6 and an internally and externally threaded cap 7 which screws onto one end of said sleeve. The other end of the sleeve 6 screws into the fixture 2 while the cap 7 screws into the spray head 3 or 5. The end wall of the cap has a plurality of outlet ports 8. A plug 9 screws into the end of the sleeve 6 on which the cap 7 screws, said plug being provided with a plurality of ports 10 spaced apart circumferentially near the periphery of the plug and all extending at an angle in the same direction. A rotary interrupting wheel 11 is journaled within the cap 7 between the end wall thereof and the end of the sleeve 6 on a screw 12 seated in the plug 9. Said interrupting wheel is formed with sectoral blades 13.

The water passing through the union strikes the interrupting wheel blades 13 at an angle as it passes from the angular ports 10 and thereby rotates the wheel 11, which alternately closes and opens the cap ports 8 and interrupts the flow of water without destroying the continuity of the stream, thus giving the water passing from the spray head a pulsating action.

Having described my invention, I claim:

In combination, a sleeve threaded externally and threaded internally at one end, a plug screwed in the internally threaded end of the sleeve, said plug having a plurality of angular ports extending there-through, a cap screwing on the end of the sleeve over said plug provided with outlets in its end wall, a screw seated in said plug and a water wheel journaled on said screw between said plug and said cap.

In testimony whereof I affix my signature.

JEROME J. DONOVAN.