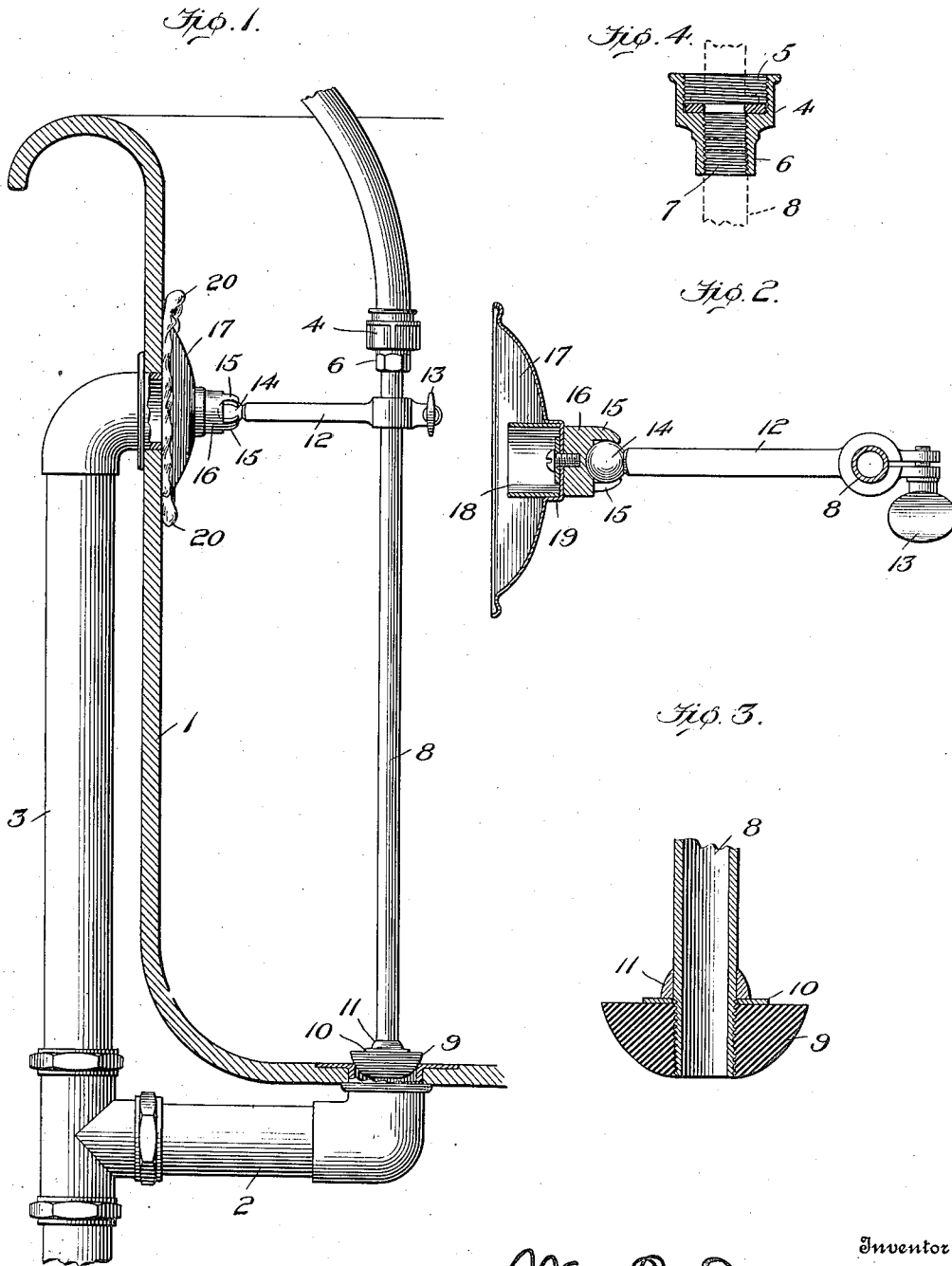


W. L. DEMING.
FLUSHING APPARATUS.
APPLICATION FILED OCT. 26, 1908.

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Patented Mar. 15, 1910.



Witnesses

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WILLIAM L. DEMING, OF SALEM, OHIO, ASSIGNOR TO THE DEMING COMPANY, OF SALEM, OHIO, A CORPORATION OF OHIO.

FLUSHING APPARATUS.

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Specification of Letters Patent.

Patented Mar. 15, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM L. DEMING, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Flushing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to means for flushing, or clearing obstructions from the outlet or waste-pipe of bath-tubs, stationary wash-basins, sinks, etc.

More particularly stated, it comprises a novel flushing apparatus or attachment for plumbers' force pumps which is extremely simple in construction, and effective in its operation, readily applied and as readily operated by experienced or inexperienced persons alike.

The invention will be hereinafter particularly described and pointed out in the claims following.

In the accompanying drawings which form part of this application and whereon like reference characters indicate corresponding parts in the several views: Figure 1 represents in side elevation my present invention as applied, for purposes of illustration, to an ordinary bath-tub one end of the latter being shown in vertical section. Fig. 2 is a horizontal section through the overflow-closure and the flushing or extension pipe, taken through said parts immediately above their connecting arm which latter is therefore shown in plan. Fig. 3 is a fragmentary view showing in vertical central section the self-packing discharge plug, and Fig. 4 is a vertical central section corresponding with Fig. 3, of a coupling for connecting the invention directly with the city water supply, or with a force pump, as desired.

Reference being had to the drawings and numerals thereon, 1 indicates an ordinary bath-tub or other receptacle of like character, 2 the waste-pipe and 3 an overflow pipe, all of ordinary construction.

The numeral 4 indicates a coupling member threaded as at 5 to mate with a standard hose coupling, and 6 indicates a concentric projection interiorly threaded as at 7 to serve as a connection for the male half-hose

coupling of any approved force pump (not shown), and a flushing or extension pipe 8 forming part of the present invention. Threaded upon the lower end of said flushing or extension pipe 8 is a discharge plug 9 of yielding material, preferably rubber and of substantially hemispherical form, shouldered upon a washer 10, the latter backed by a fixed enlargement or foot 11 surrounding the pipe 8 at this point.

Vertically adjustable upon the extension pipe 8 is a rigid arm 12 retained in position at right angles to said pipe by a flat-head thumb-screw 13, and having at its outer end a ball 14 engaged and partially inclosed by 70 curved fingers 15 forming part of a socket member 16 as shown by Figs. 1 and 2. Secured to the socket member 16 is an enlarged concave non-collapsible disk or overflow-closure 17 reinforced by a tubular thimble 18 concentrically arranged and projecting into said closure 17 from a central depression 19 therein.

All parts hereinbefore described with exception of the discharge plug 9 are preferably formed of brass the better to resist corrosion and deterioration, but obviously other metals and materials may be substituted; and likewise the particular arrangement and combination of parts herein shown and described may be variously modified without departing from the spirit of this invention, the operation whereof is substantially as follows: Presuming the waste-pipe of a bath-tub for example, to be obstructed at a point below the pipe 2 shown by Fig. 1. Arm 12 is now elevated upon its supporting pipe 8, and secured by agency of screw 13 at a point corresponding approximately with the height of the tub-overflow at top of pipe 3. Coupling 4 may now be connected by means of its threads 5 and a short section of hose directly with the hose-bib of the tub (not shown), or in any other manner with the ordinary service pipes; or, if a force pump be employed as the flushing power, such pump may be connected to said coupling 4 by means of its threads 7 and an intermediate hose connection, or by any other means. But in either event the ordinary discharge at bottom of tub 1 is closed by the introduction of rubber discharge plug 9, and its customary overflow closed by agency of a moistened cloth such as 20, which latter in turn is covered by the over-

flow-closure 17, as shown by Fig. 1. During the operation aforesaid it is apparent that said closure 17 readily adapts itself to its intended seat by reason of the universal joint whereby it is connected to the arm 12, and may be firmly held to its work by the hand of an operator without injury to the sheet metal disk or closure 17 which in the meantime is supported by the tubular thimble 18 and by it prevented from collapsing. At this juncture a water seal may be added to the plug 9, if desired, by flooding or submerging same, although such precaution is by no means essential; whereupon water now forced through the flushing or extension pipe 8, as aforesaid, either directly from the city service pipes or by agency of an approved force pump, entering waste-pipe 2, is effectually checked from returning to tub 1 by means of overflow closure 17, and is directed under pressure against the obstruction below to flush or clear the pipe.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a flushing apparatus, the combination with an extension pipe, of a suitable packing for the discharge end thereof, an arm rigidly supported at right angles to said pipe and vertically adjustable thereon, a concave non-collapsible overflow closure connected to the outer end of said arm by

a universal joint, and a reinforcing thimble projecting centrally into said concave closure, substantially as described.

2. In a flushing apparatus, the combination with an extension pipe, of a suitable packing for the discharge end thereof, an arm rigidly supported at right angles to said pipe and vertically adjustable thereon, a ball upon the outer end of said arm, a universally movable socket engaging said ball, a concave non-collapsible overflow closure affixed to said socket, and a reinforcing thimble projecting centrally into said concave closure, substantially as described.

3. In a flushing apparatus, the combination with an extension pipe, of a suitable packing for the discharge end thereof, an arm having at one end a collar vertically adjustable upon said pipe for maintaining said arm in a right angular position, a ball upon the opposite end of said arm, a universally movable socket engaging said ball, a concave non-collapsible overflow closure affixed to said socket, and a reinforcing thimble projecting centrally into said concave closure, substantially as described.

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

WM. L. DEMING.

Witnesses:

WM. E. DYRE,

J. C. BOONE.