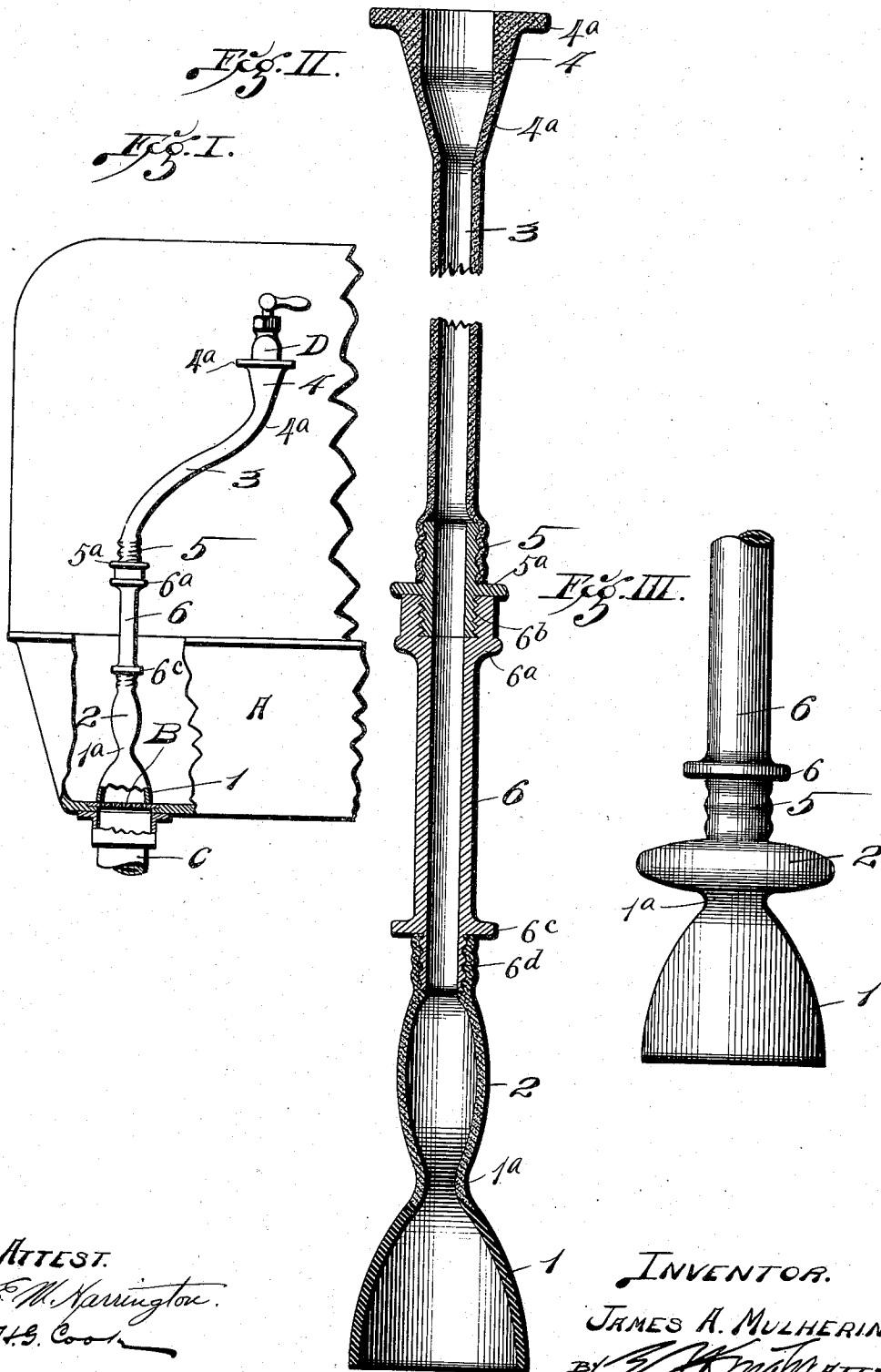


J. A. MULHERIN.
 DEVICE FOR REMOVING OBSTACLES FROM DRAIN PIPES.
 APPLICATION FILED JAN. 23, 1909.

937,458.

Patented Oct. 19, 1909.



ATTEST.
 E. M. Harrington.
 J. B. Cook

INVENTOR.
 JAMES A. MULHERIN.
 BY E. J. Knappe ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES A. MULHERIN, OF ST. LOUIS, MISSOURI.

DEVICE FOR REMOVING OBSTACLES FROM DRAIN-PIPES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES A. MULHERIN, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Devices for Removing Obstacles from Drain-Pipes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a device for application to the drain outlets of sinks, wash basins, bath tubs, or other sanitary appliances, and through which a flow of water from a faucet may be occasioned for the purpose of forcing the water into the drain pipe to force therethrough, and more particularly from the trap therein, any substance that may have become present and acts to clog the pipe or trap.

Figure I is a view partly in elevation and partly in vertical section of my device applied to a sink. Fig. II is a longitudinal section through my device, with the entrance tube partly broken out. Fig. III is an elevation of the lower end of the device illustrated as it appears when the device is being used as a force pump.

In the accompanying drawings, A designates a sink having a drain outlet protected by a strainer B, and C is a drain pipe leading from said outlet. D is a faucet located above the sink. 1 designates the force cup of my device which is adapted to be applied to the strainer at the outlet from the sink A. The lower portion of this force cup is preferably of hard rubber so that it is unyielding, while the upper portion 2 of the cup is of bulb shape and both the upper portion 2 and the contracted neck 1^a are of soft rubber, thereby providing for the yielding of this portion above the lower portion when pressure is exerted thereagainst longitudinally of the force cup.

3 designates an entrance tube, preferably of rubber, and which is provided with a flaring neck 4^a and a mouth 4 having a flange 4^b and that is adapted to be fitted to the faucet D and remain firmly in engagement therewith during the use of my device. The entrance tube has connected to it at its lower end a corrugated tubular coupling member 5 formed with a flange 5^a and a screw threaded neck 5^b.

6 designates a tubular handle interposed

between the upper end of the force cup 1 and the lower end of the entrance tube 3, this handle being formed with a head 6^a having a socket 6^b secured to the coupling member 5 at its upper end whereby it is connected to the entrance tube and having connected to its lower end the force cup by a flange 6^a and corrugated neck 6^b, as seen in Fig. II.

In the practical use of my device, the entrance tube is fitted to the faucet above the sink, bowl, or other sanitary appliance, and the force cup is seated upon the strainer at the outlet from said sanitary appliance, as seen in Fig. I. The operator then holds the force cup in position at the outlet by grasping the handle 6 and holding it in a vertical position whereby a direct flow of water through the device from the faucet and into the drain pipe will be occasioned. If the matter in the drain pipe which acts to clog it and which it is desired to remove is not securely embedded in the drain pipe, the flow of water, produced as explained, into the drain pipe is sufficient to remove the obstacle therefrom by forcing it downwardly through the pipe.

In instances where merely the flow of water through the device and into the drain pipe is insufficient to remove the obstacle therefrom, the force cup is placed in operation as a force pump, in which event the operator by grasping the handle 6 moves it downwardly and upwardly with the result of upon each downward movement causing the flexible upper portion 2 of the force cup to be flexed outwardly to the condition seen in Fig. III, and causing the water flowing to the force cup to be forcibly driven from the flexible portion of the cup to the lower inflexible portion and into the drain pipe, whereby sufficient force of water through the drain pipe is occasioned to dislodge the clogging obstacle therein.

I claim:—

1. In a device of the character described, the combination of a force cup having a lower portion, an upper portion and a contracted neck between the upper and lower portions, an entrance tube adapted to be applied to the faucet, and a hollow handle intervening between said entrance tube and said force cup.

2. In a device of the character described, the combination of a force cup having a lower portion, a flexible upper portion and

a contracted neck between the upper and lower portions, a hollow handle fitted to the upper portion of the force cup, and an entrance tube connected to said hollow handle and adapted to be applied to a faucet.

3. In a device of the character described, the combination of a force cup having a hard rubber lower portion, a soft rubber upper portion, a hollow handle to which said upper portion is connected, and an entrance tube connected to said hollow handle and adapted to be applied to a faucet.

4. In a device of the character described, the combination of a force cup, having a lower portion, an upper portion and a contracted neck between the lower and upper

portions, a hollow handle to which said force cup is connected, a coupling member fitted to said hollow handle, and an entrance tube fitted to said coupling member and having a neck at its upper end adapted to be applied to a faucet.

5. In a device of the character described, the combination of a force cup having a non-resilient lower portion, a resilient upper portion, a hollow handle to which said upper portion is connected, and an entrance tube connected to said hollow handle and adapted to be applied to a faucet.

JAMES A. MULHERIN.

In the presence of—

H. G. COOK,
E. B. LINN.