No. 734,682. PATENTED JULY 28, 1903.

J. H. DOYLE.

DEVICE FOR FLUSHING DRAIN PIPES.

APPLICATION FILED MAY 28, 1902.

NO MODEL.

Fig. 1.

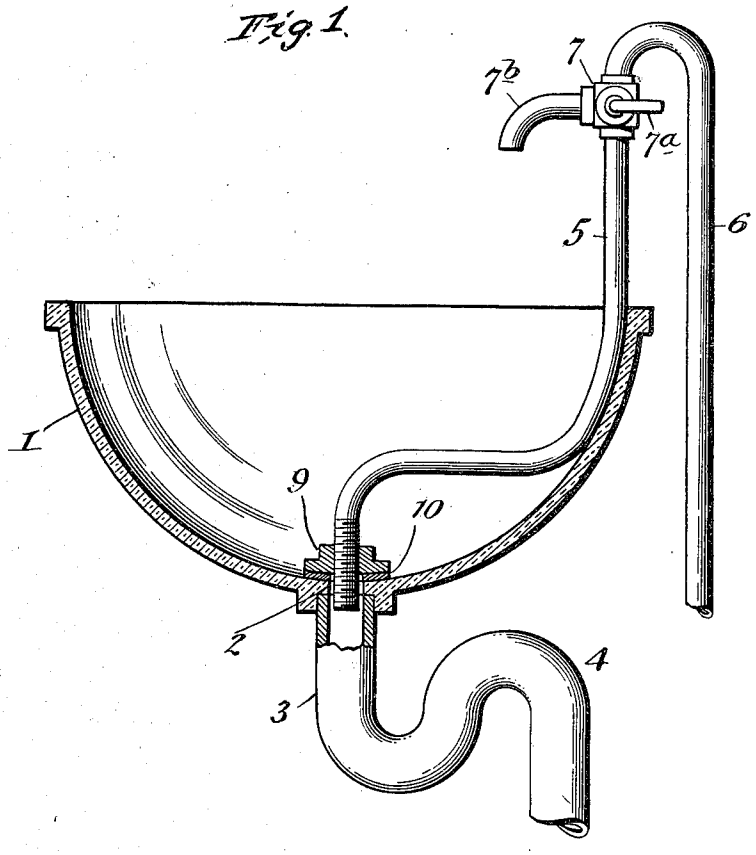
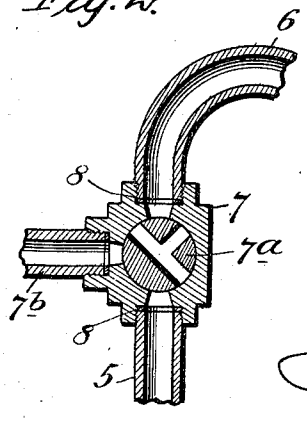


Fig. 2.



WITNESSES:

A. R. Applewhite

J. M. Hoctor

INVENTOR

John H. Doyle,

BY

J. R. Littell

his ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 734,682. Patented July 28, 1903.

UNITED STATES PATENT OFFICE.

JOHN HENRY DOYLE, OF NEW ORLEANS, LOUISIANA.

DEVICE FOR FLUSHING DRAIN-PIPES.

SPECIFICATION forming part of Letters Patent No. 734,682, dated July 28, 1903.

Application filed May 28, 1902. Serial No. 109,307. (No model.)

To all whom it may concern:

Be it known that I JOHN HENRY DOYLE, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Devices for Flushing Drain-Pipes, of which the following is a specification.

This invention relates to devices for flushing drain-pipes, and has for its object to provide an improved device of the class described which will possess points of advantage in convenience, simplicity, inexpensiveness, effectiveness, and general efficiency.

Another object of the invention is to provide a device of the class described which can be used by a person without skill, experience, or training.

Another object of the invention is to provide a device of the class described which can be attached permanently or temporarily, as desired, and which can be quickly, readily, and easily put in operative position.

In the drawings, Figure 1 is a side elevation of a sink and drain-pipe embodying my improvements, showing parts in section. Fig. 2 is a detail sectional view of the connection between the flushing device and the water-supply pipe.

Corresponding parts in both figures are denoted by the same reference characters.

Referring to the drawings, 1 designates a sink of the ordinary form usually found in the kitchen of private houses.

2 designates the opening from the sink 1 into the drain-pipe 3, which communicates with a sewer (not shown) and is provided with a trap 4 to prevent the escape of sewer and other gases from the sewer into the house.

My invention consists of means connecting the source of the water-supply (not shown) and the drain-pipe 3 for the purpose of conveying a flow of water directly into and through the drain-pipe 3 to flush and clean the same and is an improvement over the device shown in the application filed by me April 16, 1902, Serial No. 103,111, and that shown in the application filed by me May 28, 1902, Serial No. 109,308.

In the preferred form the device which is the subject of this application embodies a rigid pipe 5, provided at its upper end with means of connection with a water-supply pipe 6 and at its lower end connecting with the drain-opening 2. The pipe 5 conforms in part to the contour of the sink 1 and may be laid in a suitable covered groove, so that the interior of the sink 1 shall, as far as possible, be free from inequalities or crevices in which particles of grease and other objects might lodge. The upper end of the pipe 5 is exteriorly screw-threaded, the pitch of such threads being opposite to that of those on the lower end of the water-supply pipe 6. A valve-shell 7, interiorly screw-threaded complementary to the screw-threads on the end of the pipe 5 at one end and at the other end to the screw-threads on the water-supply pipe 6, fits over the end of the pipe 5 and the end of the water-supply pipe 6. The valve-shell 7 is provided centrally with a three-way valve adapted when the shell 7 is secured in place upon the end of the pipe 5 and the end of the water-supply pipe 6 to open communication between the pipe 6 and the pipe 5 and between the water-supply pipe 6 and a spout 7^b, projecting centrally from the shell 7, or to close said channels. Suitable washers 8, preferably of leather or rubber, are interposed between the end of the pipe 5 and the valve-shell and the valve-shell and the end of the water-supply pipe 6. The lower end of the pipe 5 enters the drain-opening 2 and is exteriorly screw-threaded for some distance above said opening. A nut 9, interiorly screw-threaded complementary to the screw-threads upon the pipe 5, is provided to act as a valve or closure. This has a somewhat extended lower surface, the contour of which is complementary to the contour of the bottom of the sink 1 adjacent to the drain-opening 2. A washer 10 of suitable material, preferably leather or rubber, is provided and placed over the lower end of the pipe 5 between the lower surface of the nut 9 and the bottom of the sink 1.

The operation and advantages of my invention will be readily understood and appreciated. The shell 7, with its three-way valve, is screwed on the upper end of the pipe 5 and the water-supply pipe 6 and the lower end of the pipe 5 also connected, and the nut 9 and washer 10 having been previously placed thereon inserted in the drain-opening

2. If it is desired to use the sink 1, the nut 9 is simply screwed down, pressing the washer 10 between the lower surface of the nut 9 and the bottom of the sink 1 about the drain-opening 2, thereby closing the same. The valve 7^a is now turned so that the water will pass through the spout 7^b, and the sink is ready for use as soon as enough water has been drawn thereinto. When it is desired to empty the sink and flush the drain-pipe 3, the nut 9 is screwed up, opening the drain-opening 2, and the valve-handle 7^a turned so as to permit the passage of water through the pipe 5, whereby the water passes from the sink into the drain-pipe 3 at the same time the drain-pipe 3 is being flushed. Should the drain-pipe 3 become obstructed, the nut 9 is screwed down, closing the drain-opening 2, and the water turned into the drain-pipe by the valve-handle 7^a. This device will not interfere in any way with the ordinary use of the water-supply pipe 6 nor with the appearance of the structure and will furnish easy, ready, prompt, and effective means for cleaning the drain-pipe after the sink is used without the necessity of seeking a special appliance and attaching it each time it is proposed to flush the drain-pipe 3.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

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

1. A device of the class described, comprising a flushing-pipe extending interiorly of the sink from its top down one side toward the central outlet leading to the drain-pipe, and connected at its upper end with the water-supply and at its lower end with the opening to the main pipe, a spout adapted to discharge into the sink, a three-way valve controlling the flow of water from the supply-pipe to the spout and from the supply-pipe to the flushing-pipe, and means adjustable upon the lower end of the flushing-pipe for controlling the opening from the sink into the drain-pipe.

2. A device of the class described, comprising a pipe conforming partly to the contour of the sink, an interiorly-screw-threaded shell provided with a central three-way valve, and a spout projecting from such valve-shell and adapted to be secured upon the end of the water-supply pipe and the upper end of the connecting-pipe, and an interiorly-screw-threaded valve or closure on the lower end of the connecting-pipe and adapted to control the opening from the sink into the drain-pipe.

3. A device of the class described, comprising a pipe provided with exteriorly-screw-threaded ends, a shell provided with a centrally-projecting spout and a three-way valve and exteriorly screw-threaded at one end complementary to the end of said pipe and provided at the other end with means of attachment to the end of a water-supply pipe, and an interiorly-screw-threaded nut adjustable on the lower end of the first-mentioned pipe and provided with an extended lower surface the contour of which is complementary to the bottom of the sink adjoining the drain-hole.

4. A device of the class described, comprising a pipe provided with exteriorly-screw-threaded ends, a shell provided with a centrally-projecting spout and a three-way valve and at one end with means of attachment to the end of a water-supply pipe and interiorly screw-threaded at the other end complementary to the upper end of the first-mentioned pipe, a nut interiorly screw-threaded complementary to the lower end of the first-mentioned pipe and provided with an extended lower surface the contour of which is complementary to the bottom of the sink adjoining the drain-hole, and a washer fitting over the lower end of the first-mentioned pipe and interposed between the nut and the bottom of the sink.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

JOHN HENRY DOYLE.

Witnesses:
HARTWELL P. HEATH,
JOHN M. HOCTOR.