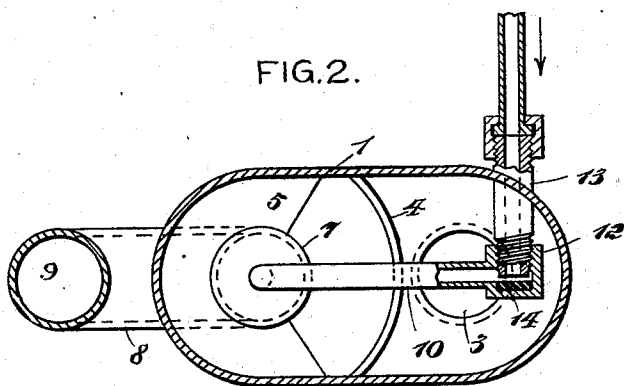
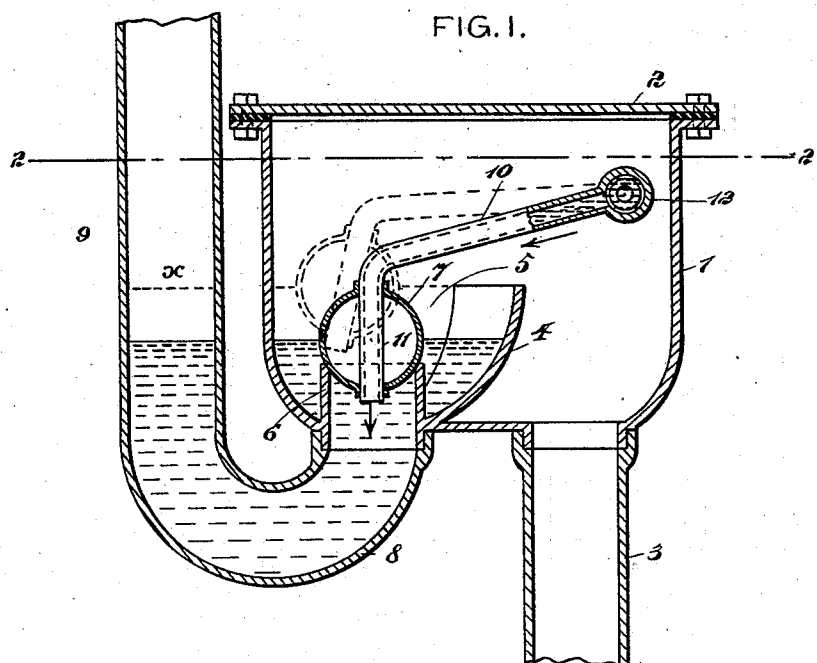


(No Model.)

H. McEVoy.
SEWER GAS TRAP.

No. 580,700.

Patented Apr. 13, 1897.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY McEVOY, OF NEW YORK, N. Y., ASSIGNOR TO HUGH DONOHUE, OF
SAME PLACE.

SEWER-GAS TRAP.

SPECIFICATION forming part of Letters Patent No. 580,700, dated April 13, 1897.

Application filed January 2, 1897. Serial No. 617,750. (No model.)

To all whom it may concern:

Be it known that I, HENRY McEVOY, of New York city, in the county and State of New York, have invented new and useful Improvements in Sewer-Gas Traps, of which the following is a full, clear, and exact description.

This invention relates to devices for preventing the entrance of sewer-gas into a room through the discharge-pipe of a sink or similar device; and the object is to provide a simple trap that will be sealed automatically either by water or by a valve movable into a discharge-pipe.

I will describe a sewer-gas trap embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a vertical section of a device embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring to the drawings, 1 designates a casing of any suitable material, having a removable cover 2 and communicating with a discharge-pipe 3, designed to communicate with a sewer-pipe. This casing 1 is provided at its bottom between its ends with a bridge-wall 4, which, with the wall of the casing, forms a trap-bowl 5.

Extended through the bottom of the casing 1 and upward into the bowl 5 is a tube 6, the upper end of which forms a valve-seat for a hollow spherical valve 7, which may be made of rubber or any other desired material. The pipe 6 communicates with the elbow 8 of the discharge-pipe 9, leading from a sink or other device. The valve 7 is supported by a tubular swinging arm 10, which extends entirely through the valve, as indicated at 11, and of course is open at its lower end.

The opposite end of the arm 10 has a head 12 extended at substantially right angles to the arm and provided with an interior screw-thread to engage with a screw-threaded portion of a water-inlet tube 13, which is designed to communicate with a water-supply pipe.

Within the head 12 of the arm 10 and in line with the end of the tube 13 is a packing 14, of rubber or similar material, against

which the end of the tube 13 may abut to close off the water flowing through the tube 13.

It will be seen that the opening through the tube 13 and through the tube 10 is quite small, as it is designed that but a small amount of water shall enter therethrough.

In operation when water is discharged from a sink through the pipe 9 the greater portion will flow over the bridge-wall 4 and out through the pipe 3, and when the water shall have reached the level indicated by the dotted line *x* the valve 7 will be held in the position indicated in dotted lines in Fig. 1, and as it is raised to this position the screw-thread of the head 12 will be drawn upon the screw-thread of the tube 13 and close the packing 14 against the end of the tube 13. Therefore no water will enter from the tube 13. In course of time, however, a certain amount of water will evaporate from the elbow 8 and from the bowl 5, and consequently the level thereof will be lowered. This will allow the valve 7 to lower, and during this lowering movement the tube 13 will be moved away from the packing 14, so that a small amount of water will be admitted to replenish the amount evaporated, and thus maintain a liquid seal.

In vacant houses it is often the practice to cut off the water at the main. In this event there will be no water in the elbow 8 or in the bowl 5, or what little may remain therein will be evaporated. At this time the valve 17 will lower into the valve-seat of the tube 6, thus closing the pipe 9 and preventing the entrance of gas.

It will be seen that this apparatus is comparatively inexpensive to manufacture and there are no parts that are liable to get out of order. Should the screw-thread connections between the head 12 and the tube 13 become rusted, however, and cause the arm to stick, the cover 2 of the casing may be removed and the defect remedied by either oiling or raising and lowering the arm 10 a number of times to loosen the parts.

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

1. A sewer-gas trap, comprising a casing having a water-outlet, a bridge-wall in said casing, forming with the walls of the casing a bowl, a pipe extended up into said bowl and

through the bottom of the casing, the top of
said pipe forming a valve-seat, a valve adapt-
ed to engage on said valve-seat, a tubular arm
on which said valve is mounted, the said tubu-
lar arm being extended through the valve,
a water-inlet tube communicating with the
tubular arm, a valve for closing said commu-
nication by an upward movement of the tu-
bular arm, and a pipe having an elbow con-
nection with the pipe extended into the bowl,
substantially as specified.

2. A sewer-gas trap, comprising a casing
and having a discharge-outlet, a bridge-wall
in said casing forming one wall of a bowl in
the casing, a pipe extended upward into said
bowl and also through the bottom of the cas-

ing, a spherical valve adapted to engage in
the upper end of said pipe, a tubular arm
supporting said valve and having a portion
extended through the same, a head on said
tubular arm having an interior screw-thread,
a water-inlet tube having a screw-threaded
portion engaging with the screw-thread of the
head, a packing in said head designed to en-
gage against the end of the inlet-tube, and a
pipe having an elbow connection with the
pipe with which the valve is designed to en-
gage, substantially as specified.

HENRY McEVOY.

Witnesses:

JNO. M. RITTER,

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