July 3, 1928. 1,676,029

H. E. HEINE

TRAP

Filed April 29, 1927

Fig. 1.

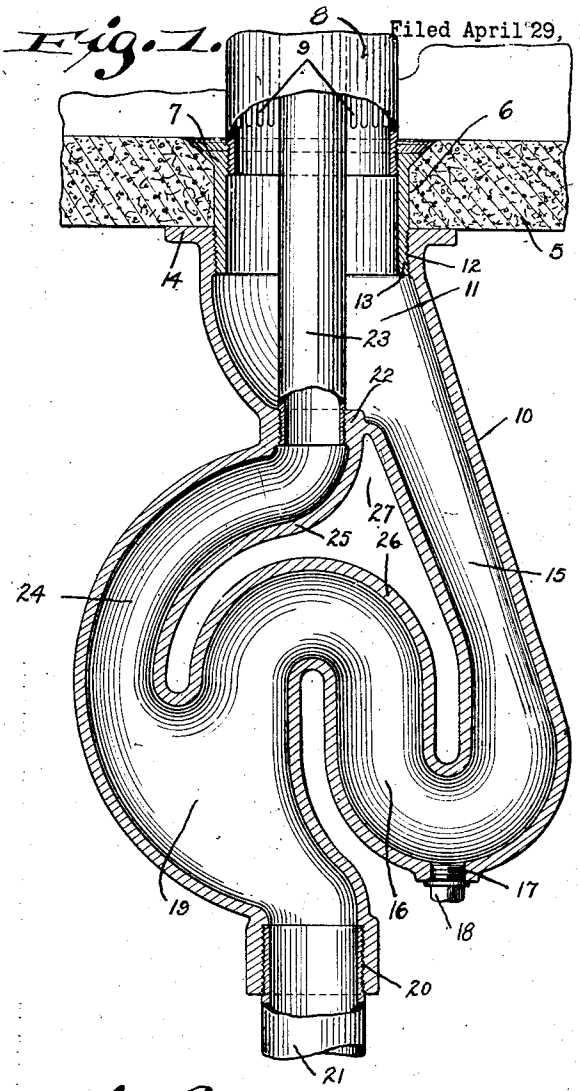


Fig. 2.

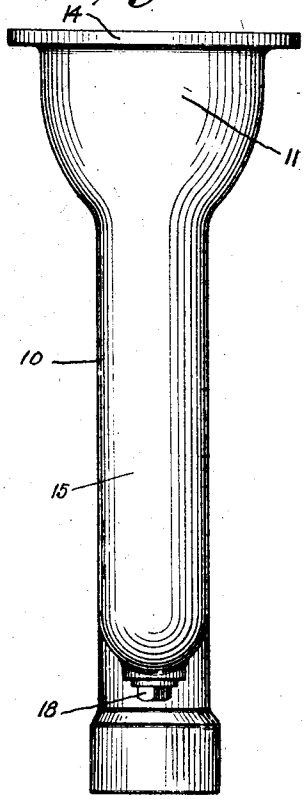
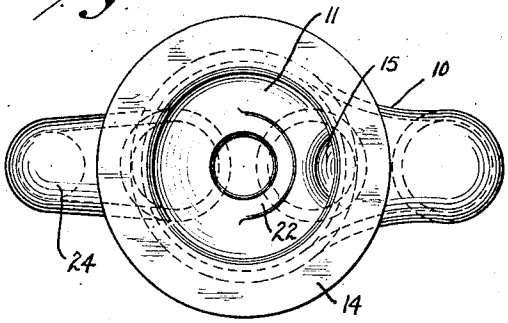


Fig. 3.



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Patented July 3, 1928. 1,676,029

UNITED STATES PATENT OFFICE.

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TRAP.

Application filed April 29, 1927. Serial No. 187,595.

This invention relates to improvements in traps, particularly adapted for use with overhead fountains.

Ventilated traps now in common use are provided with separate openings, one for the vent, and one for the waste, but this construction is open to the objection that the vent pipe must be extended from the fixture at an undesirable point, or if it is extended centrally of the fixture bowl, the drain opening can not be centrally located.

It is, therefore, the primary object of the present invention to provide a ventilated trap for overhead fountains which eliminates the foregoing objections, by combining the waste and vent pipe openings for a trap, the vent pipe being used as a division for the trap.

A further object of the invention is to provide a ventilated trap which does not depend on any metal parts for its seal, and in which the vent pipe is extended directly through the drain inlet.

A further object of the invention is to provide a ventilated trap of the class described which will not conflict with the plumbing regulations of the various localities.

A further object of the invention is to provide a trap in which the vertical vent pipe from the trap and the lower waste discharge pipe are in vertical alinement.

A further object of the invention is to provide a ventilated trap which is of simple construction, is strong and durable, and is well adapted for the purposes described.

With the above and other objects in view the invention consists of the improved ventilated trap, and its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views:

Fig. 1 is a vertical sectional view of the trap connected with a fixture bowl and other associated parts;

Fig. 2 is a side view of the trap; and

Fig. 3 is a plan view thereof.

Referring now more particularly to the drawing, it will appear that the numeral 5 indicates the bowl of an overhead fountain provided with a central waste opening 6 in which a bushing 7 is positioned. Threaded within the bushing 7 and extending vertically upwardly therefrom is a supporting tube 8 provided at its lower end portions with waste openings 9.

The improved trap, designated generally by the numeral 10, is adapted for attachment below the bowl 5 and in register with the waste opening 6. The entire trap is in the form of a tubular casting with an upper waste inlet portion 11, internally threaded, as at 12, for connection with the threaded, depending end portion 13 of the bushing 7. The upper end portion of the waste inlet portion 11 is provided with an annular flange 14 to engage the undersurface of the bowl 5. Extending downwardly from one side of the inlet portion 11 is a waste pipe portion 15 terminating in an S-shaped waste trapping portion 16, provided at its lower portion with a drain or cleaning opening 17 closed by a plug 18. The S-shaped portion 16 communicates with a lower enlarged chamber portion 19 which is reduced and internally threaded at its lower end portion, as at 20, for the attachment of a drain pipe 21.

The lower part of the upper waste inlet portion 11, adjacent the opening of the waste pipe portion 15, is formed with a boss 22 which is tapped to provide for the connection of a vent pipe 23. Said vent pipe extends vertically upwardly through the waste inlet opening of the trap casting, as shown in Fig. 1, and the waste inlet is sufficiently large to accommodate the vent pipe passing through it without causing obstruction. The vent pipe is also in vertical alinement with the drain pipe 21.

The trap casting is further provided with an outwardly curved vent portion 24 extending from the tapped boss 22 downwardly to the lower enlarged chamber portion 19, into which it merges.

It will thus appear that the vent portion and the waste trapping portion of the trap are separated by two walls or thicknesses of metal, indicated at 25 and 26 in Fig. 1, and in addition there is an air space 27 between said walls and hence the trap is not dependent upon metal alone for its seal. Also, the vent pipe extends from the trap through the waste inlet, providing for a convenient disposition for said vent pipe, as well as a centrally located waste opening for the bowl.

From the foregoing description it will be seen that the improved ventilated trap is of simple and novel construction and is well adapted for the purpose described.

What is claimed as the invention is:

1. In a trap having its interior divided into a vent portion and a trapping portion, said trap also having an opening communicating with both portions, a vent pipe of less diameter than said opening and extending therethrough and connected with said vent portion.

2. A trap, comprising a member having a trapping portion and a vent portion, both of said portions merging together at each end of the member to form a discharge portion and an inlet portion, the discharge and inlet portions both having openings, and a vent pipe entering the member through the opening in the inlet portion and connected with the vent portion.

3. A trap, comprising a member having a trapping portion and a vent portion, both being separated by a pair of walls and an air space between the walls, both of said portions also merging together at each end of the member to form a lower discharge portion and an upper inlet portion, both of said latter portions having exterior openings, and a vent pipe of less diameter than the inlet portion opening and entering the member through said opening and connected directly with the vent portion whereby said inlet opening provides a waste inlet and a vent outlet.

In testimony whereof, I affix my signature.

HERMAN E. HEINE.