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BACKFLOW CHECK FLOAT FOR SEWERS

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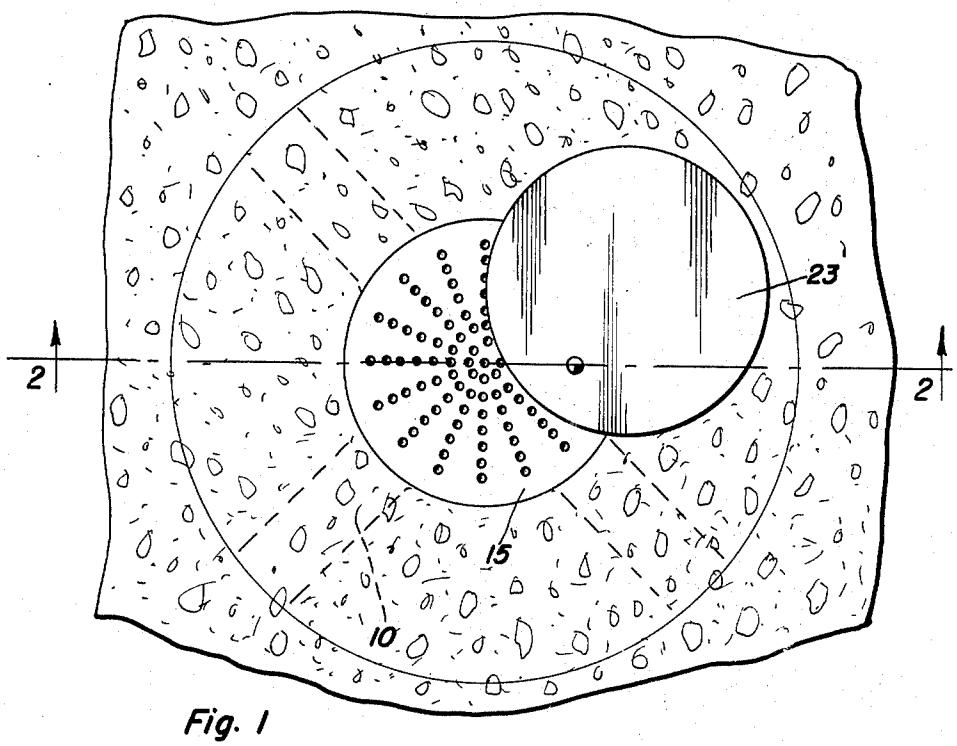
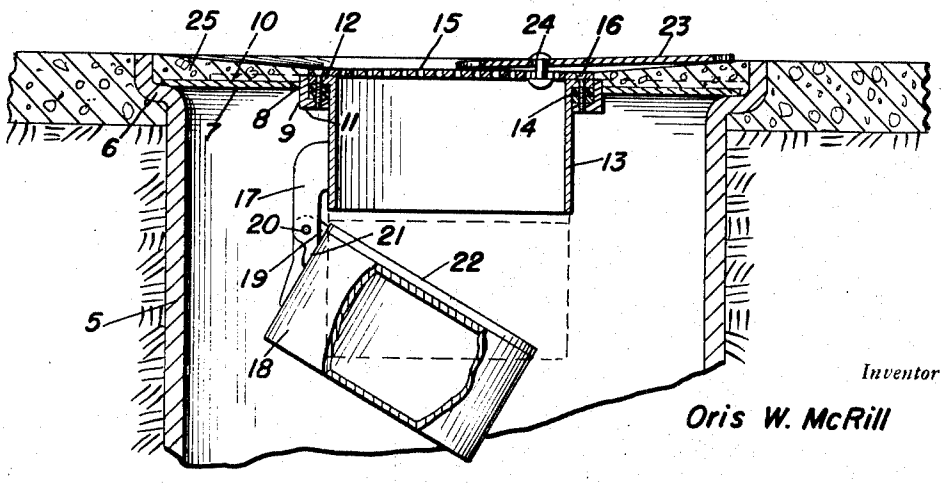


Fig. 1

Fig. 2



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BACKFLOW CHECK FLOAT FOR SEWERS

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1 Claim. (Cl. 182—25)

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The present invention relates to new and useful improvements in backflow checks for sewer drains and more particularly to a novel float assembly supported in the drain to prevent the backflow of water from a sewer into a basement or the like.

An important object of the invention is to provide a sewer check of this character embodying a float assembly which may be easily and quickly mounted in a sealed position in a sewer drain pipe to effectively close the drain from backflow of water.

Another object is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a top plan view; and

Figure 2 is a vertical sectional view taken on a line 2—2 of Figure 1.

Referring now to the drawing in detail, wherein, for the purpose of illustration, I have disclosed a preferred embodiment of my invention, the numeral 5 designates a usual sewer drain pipe having an internal shoulder 6 at its upper end.

A plate 7 rests on the shoulder and is formed with a central opening 8 in which a ring 9 is fitted. The ring is formed with radial arms 10 resting on top of plate 7 and an inwardly projecting flange 11 for supporting an outwardly projecting flange 12 on the upper end of a tube 13 positioned centrally in pipe 5. A gasket 14 is placed between flanges 11 and 12 and a screen 15 is secured on top of flange 12 by screws 16 which pass through both flanges.

A hanger bracket 17 is fixed to one side of tube 13 and extends downwardly therefrom and to the lower end of which a hollow metal float 18 is pivoted for vertical swinging movement by an ear 19 at one upper side of the float and a pin 20 passing through the bracket and ear. A stop 21 is formed with the bracket to limit downward swinging movement of the float and a rubber or other suitable sealing pad 22 is cemented on top of the float for closing the lower end of tube 13 when the float rises.

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A swinging cover 23 is pivoted to a pin 24 attached to screen 15 to close the top of the tube.

Cement 25 covers the top of plate 7 and arms 10 to seal the plate and ring 9 in the top of the drain pipe 5.

Float 18 is normally supported in a downwardly inclined position under the lower end of tube 13 by stop 21 and water entering the drain keeps the sealing pad 22 clean. Should water back up in the sewer pipe, the float will rise to close the lower end of tube 13 and thus prevent backflow of water from entering the basement in which the drain is placed.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and within the scope of the appended claim.

Having described the invention, what is claimed as new is:

A backflow check for sewer drain pipes comprising a plate supported in the drain pipe and having a central opening, a ring positioned in the opening, radial arms on the ring resting on the plate, an inwardly projecting flange on the ring, a drain tube having a flange at its upper end supported by the first-named flange, sealing means between said flanges, sealing means covering the plate and arms and extending from the edge of the drain pipe to the edge of the ring, and a float pivoted to the lower end of the tube for vertical swinging movement to close the tube by the raising of the float.

ORIS W. McRILL.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
714,006	Menard	Nov. 18, 1902
1,196,405	Steeg	Aug. 29, 1916
1,606,396	Blom	Nov. 9, 1926
2,049,909	Kirschner	Aug. 4, 1936