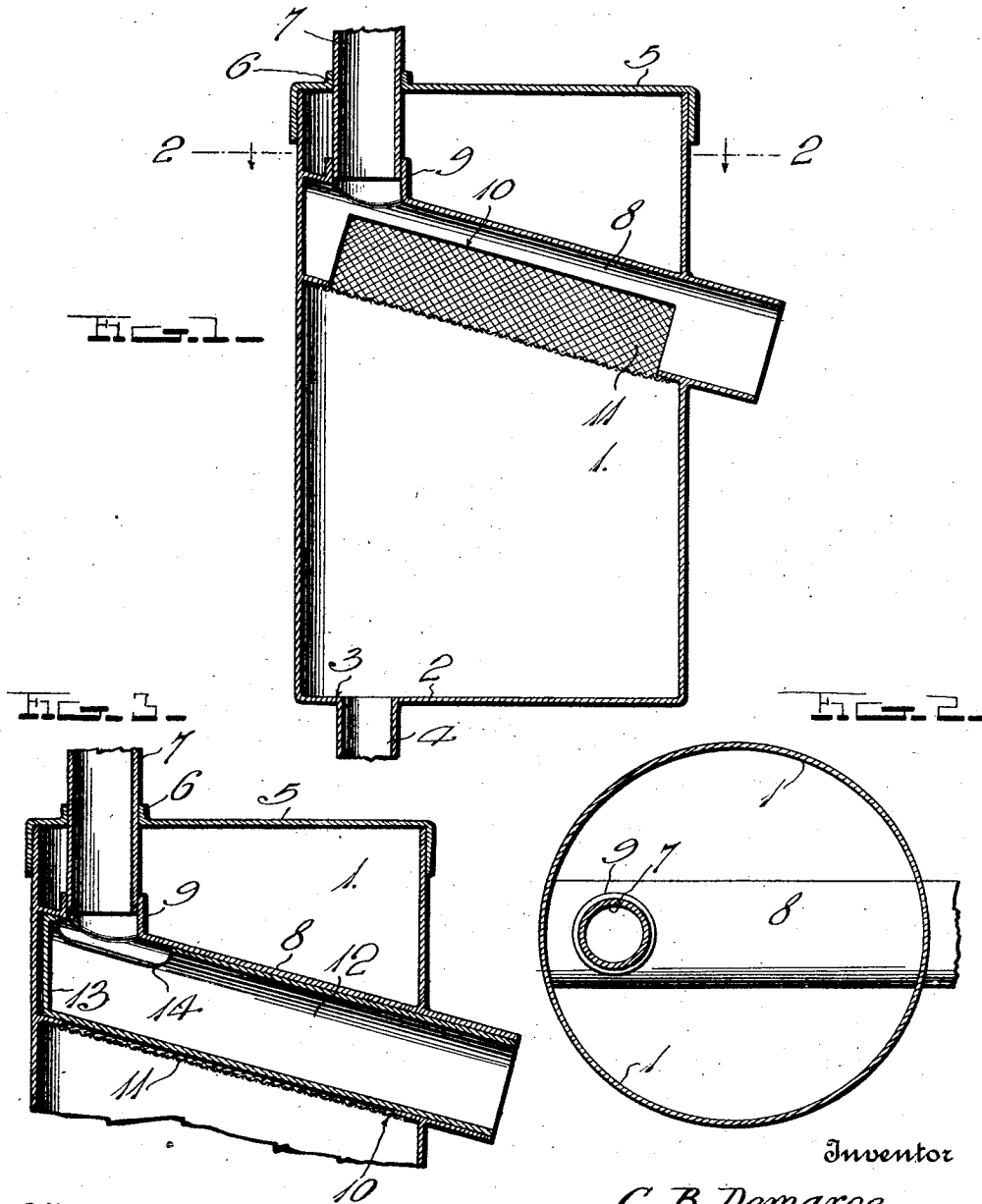


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FILTER FOR CISTERNS
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UNITED STATES PATENT OFFICE.

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FILTER FOR CISTERNS.

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To all whom it may concern:

Be it known that I, CLARENCE B. DEMAREE, a citizen of the United States, residing at Eminence, in the county of Henry and State of Kentucky, have invented certain new and useful Improvements in Filters for Cisterns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved filter for use in connection with a cistern and one object of the invention is to provide a filter having a body portion or casing with an improved type of water conduit positioned therein and for a portion of its length having a strainer section so that leaves and other trash passing into the conduit with the rain water may be prevented from passing into the filter.

Another object of the invention is to so construct this filter that a supplemental spout or pipe member may be positioned in the portion of the conduit having the strainer applied thereto, thereby causing the water and trash to pass through this supplemental pipe section and out of the casing instead of passing through the casing into the cistern.

Another object of the invention is to so construct this supplemental pipe section that it may be readily placed within the strainer-carrying portion of the main conduit by being projected into this portion of the conduit through the open end thereof and thereby permit this supplemental pipe section to be put in place without it being necessary to open the casing.

Other objects and advantages will be brought out in the course of the following detailed description.

This invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a view showing the improved filter in vertical section.

Figure 2 is a transverse sectional view taken along the line 2—2 of Fig. 1.

Figure 3 is a fragmentary vertical sectional view through the upper portion of the filter and showing the auxiliary conduit or pipe section put in place so that the water will pass through this section to a point externally of the casing instead of passing through the casing to the cistern.

This improved filter is provided with a

body portion or casing 1 which has been illustrated as circular in cross section but may be of any suitable shape desired. At its lower end, the casing is provided with a bottom 2 in which will be provided an outlet opening 3 having a pipe 4 leading therefrom. This pipe 4 will be of any suitable length so that it may be extended into the cistern and serve to deliver water passing from the filter to the cistern. The open upper end of this casing 1 will be closed by a cover 5 which in the present instance has been shown provided with a depending annular flange 6 fitting about the upper end portion of the casing and serving to retain the cover in place upon the casing. An opening is formed in this cover 5 adjacent its periphery and provided with an upstanding annular flange or collar 6 so that a down spout 7 leading from a roof gutter or other source of water supply may be firmly held within the opening formed in the cover 5 with its lower end portion extending into the casing.

The water passing through the casing is to be strained so that leaves and other trash passing into the casing through the pipe 7 may be prevented from passing through the pipe 4 and into the cistern. Therefore, there has been provided a pipe section 8 which is disposed transversely in the casing and inclined downwardly toward its outer end as shown in Figs. 1 and 3. This pipe 8 has an inlet opening adjacent its upper end from which extends a collar 9 receiving the lower end of the pipe 7 and firmly connecting this pipe with the pipe section 8. The inner or lower end of the pipe 7 fits within this collar 9 and it will therefore be seen that all water delivered by this pipe 7 must pass through the pipe 8 before reaching the lower portion of the casing. This water is to be strained so that leaves will be removed from the water passing into the lower portion of the casing and therefore the pipe section 8 has been provided with an elongated opening 10 covered by a screening 11. This screening 11 may be formed of any suitable material found appropriate, but in the preferred form will be wire mesh of any appropriate length and width to completely cover the opening 10 and have its side and end portions secured to the outer surface of the pipe section 8. From an inspection of Fig. 1, it will be readily seen that any

leaves or other trash collecting in the pipe section 8 upon the screening 11 can be easily removed by a suitable raking implement inserted into the pipe 8 through the open
5 outer end of this pipe.

When a cistern has been sufficiently filled with water, it is desired to prevent additional water from passing into this cistern and therefore there has been provided a
10 pipe section 12 which fits into the section 8 and may be termed an auxiliary water conduit. This pipe section 12 is of the proper size to fit snugly within the pipe section 8 and has its inner end closed by
15 a head 13 so that water passing into this pipe or conduit section 12 will be prevented from splashing through the upper end of the auxiliary pipe. An inlet opening 14 is provided in this pipe section 12
20 adjacent its closed inner or upper end and is of greater dimension than the inlet opening of the pipe 8 so that water passing through the pipe 7 may readily pass into the pipe section 12. When this auxiliary
25 pipe section 12 is in place, the wire covered passage 10 of the pipe 8 will be completely covered by the pipe 12 and all water passing into this pipe 12 will flow longitudinally through the same and through the open
30 outer end of the pipe 12 at a point externally of the casing 1. It will thus be seen that the flow of water through the casing 1 may be shut off whenever necessary. When it is again desired to have the
35 water flow through the casing and pipe 4 to the cistern, it is only necessary to re-

move the pipe section 12 and the screen covered opening 10 of the pipe 8 will again be uncovered. This screen covered opening 10 is very large in comparison to the length
40 and diameter of the pipe 8 so that when the filter is in operation, the water can readily pass through the screen 11.

I claim:

A filter comprising a cylindrical casing
45 closed at its lower end and having in said end a discharge opening, a cover on the upper end of said casing, said cover having therein an inlet, a tubular pipe section disposed at an incline in said casing and hav-
50 ing one end integrally connected with the wall of one side of said casing and the other end extending through the opposite side of the casing, said pipe section having in its lower side an elongated water passage
55 and in its upper side a water inlet disposed in operative relation to the inlet in the cover for receiving a supply pipe extending into the casing through said inlet in the
60 cover, a screen covering said water passage in said pipe section and an auxiliary tubular pipe section adapted to be inserted into and entirely removed from said first men-
65 tioned pipe section, said auxiliary pipe section being closed at its inner end and having in one side adjacent said closed end a water inlet adapted to register with the water inlet of the first mentioned pipe section.

In testimony whereof I have hereunto
70 affixed my signature.

CLARENCE B. DEMAREE.