April 15, 1924. 1,490,431

W. A. PENDERGRAFT

AUTOMATIC CUT-OFF FOR CISTERNS

Filed July 8, 1922

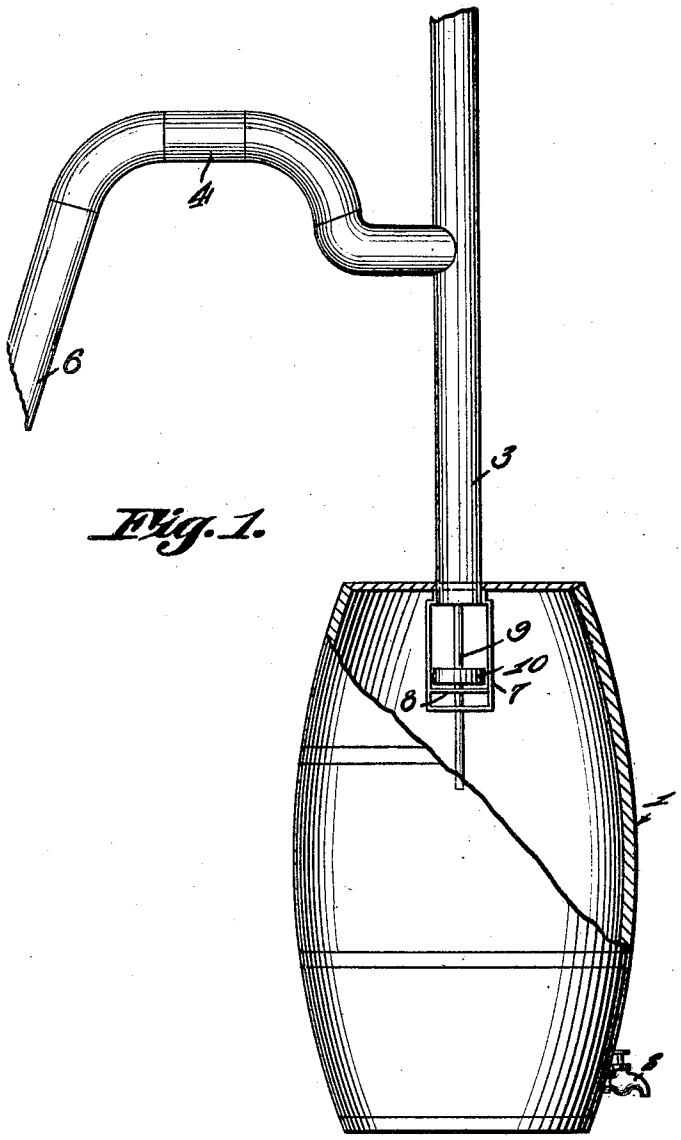

Fig. 1.

Fig. 2.

W. A. Pendergraft Inventor

By C. A. Snow & Co.

Attorney

Patented Apr. 15, 1924. 1,490,431

UNITED STATES PATENT OFFICE.

WILLIAM A. PENDERGRAFT, OF CARNEY, OKLAHOMA.

AUTOMATIC CUT-OFF FOR CISTERNS.

Application filed July 8, 1922. Serial No. 573,517.

To all whom it may concern:

Be it known that I, WILLIAM A. PENDERGRAFT, a citizen of the United States, residing at Carney, in the county of Lincoln and State of Oklahoma, have invented a new and useful Automatic Cut-Off for Cisterns, of which the following is a specification.

This invention relates to filters, and more particularly to filters used in connection with cisterns.

The object of the invention is to provide a filter of this character for catching the first wash from the roof so that nothing but clean pure water passes to the cistern.

Another object is to provide a float controlled supply pipe for the filter whereby the water fed to the filter will be cut off when it reaches a predetermined height therein.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation partly in section of the filter constituting this invention shown applied, and

Fig. 2 is a detail longitudinal section of a portion of the filter.

In the embodiment illustrated, a container 1 is shown preferably in the form of a barrel having a sediment discharge cock 2 at its bottom and closed at its top. A pipe 3 leads into said barrel 1 and is designed to be connected with a down spout leading from an eaves trough so that water from the trough is conducted through the pipe into the barrel.

A branch pipe 4 extends laterally from pipe 3 at a point spaced above the container 1 and a screen 5 is arranged over the opening through which the branch pipe enters pipe 1. The branch 4 has a downturned discharge end 6 which is designed to conduct water to the cistern direct or to the usual filter employed in connection with cisterns.

A float guide 7 is carried by the lower end of pipe 3 and depends into the barrel 1 being here shown in the form of a stirrup having a cross brace 8 through which a rod 9 extends said brace being secured at its lower end to the stirrup 7. The stirrup 7 is shown greater in diameter than the pipe 3 so that the float 10 which moves up and down with the rod 9 may be larger than the lower end of said pipe 3 in order to close said pipe end when the water in the barrel reaches a predetermined height. The rod 9 extends up into the pipe 3 and carries at its upper end another float 11 which when the float 10 closes the lower end of pipe 3 is positioned adjacent the screened entrance to the overflow or branch in the pipe 4.

The lower end of pipe 3 may extend into the barrel 1 any desired depth, but is preferably entered for about one inch, more or less. The float 10 when the barrel is empty, or partly empty rests on the brace or cross bar 8 below the end of pipe 3 so as to afford sufficient space for water entering through pipe 3 to pass into barrel 1.

In the use of this filter, the rain water running from the roof passes through pipe 3 into barrel 1 and carries with it all dust, dirt, soot and the like, which is washed from the roof by the first water passing thereover. When the barrel becomes full or nearly so, the float 10 rises carrying with it rod 9 until the float contacts with the lower end of pipe 3 and closes said end. The float 11 simultaneously rises in pipe 3 until it reaches a point near the outlet from said pipe 3 into the overflow pipe 4. The screen wire 5 which is placed over the entrance of pipe 4 prevents any sediment or foreign matter entering said pipe 4. After the water rises in the barrel sufficiently to close the lower end of pipe 3 it will overflow into pipe 4 and pass therethrough into the cistern direct or into another filter (not shown).

It will thus be seen that this filter is designed primarily to prevent the passage of the wash water including foreign matter in the form of soot, dust and the like from entering the cistern so that pure rain water only will pass to the cistern.

I claim:—

1. A filter of the class described comprising a closed container, a pipe leading into said container and provided at its inner end with a stirrup shaped supporting member of a diameter greater than said pipe, a rod mounted in said support and extending into said pipe, a float mounted on said rod within said stirrup for closing communication

between the pipe and the container when the water in the container reaches a predetermined point, a float in said pipe carried by said rod and a branch pipe leading from said main pipe at a point above the upper limit of the float mounted in the pipe.

2. A filter of the class described comprising a closed container having a sediment discharge cock at its lower end, a pipe leading into said container and designed to be connected with a down spout, a stirrup shaped member depending from the lower end of said pipe into said container and having a cross bar arranged therein, a rod carried by said stirrup and extending through said cross bar into said pipe, a pair of floats mounted on said rod one within the pipe and the other outside the lower end thereof, the lower float being larger than the pipe to adapt it to close the end of said pipe when the water in the container reaches a predetermined height, and an overflow pipe leading from said first mentioned pipe at a point above the container.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. PENDERGRAFT.

Witnesses:

E. FLANIGAN,

LILLIE HANMER.