No. 675,963. Patented June 11, 1901.

W. T. MILLS.

RAIN WATER CUT-OFF.

(Application filed Mar. 23, 1901.)

(No Model.)

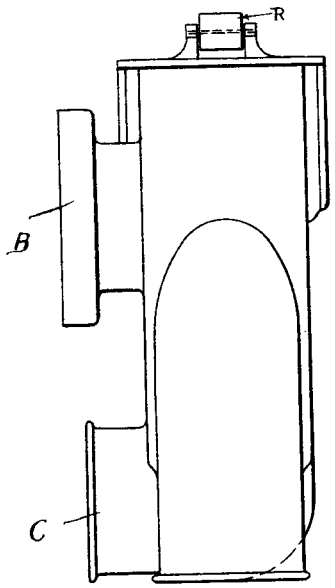

FIG. 1.

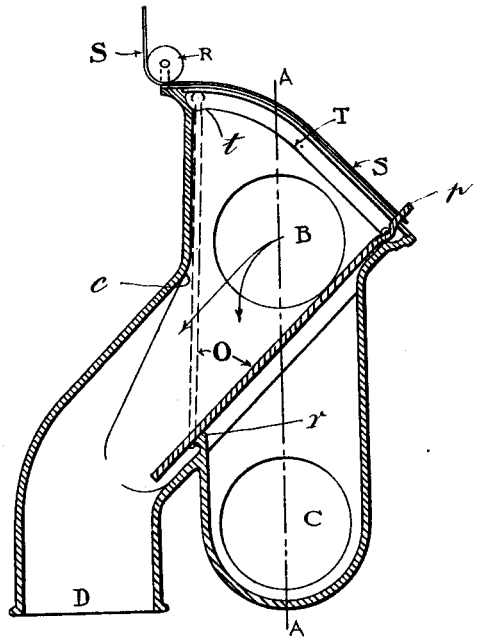

FIG. 2.

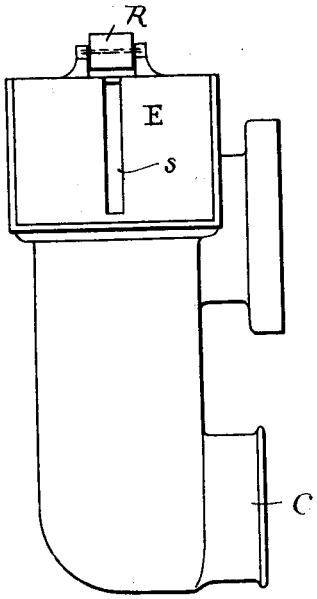

FIG. 3.

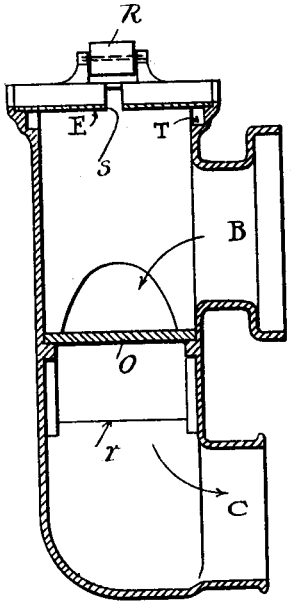

FIG. 4

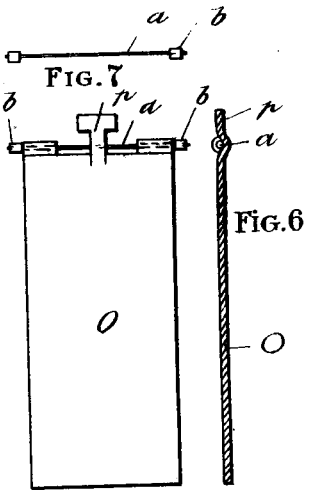

FIG. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

WILBUR T. MILLS, OF COLUMBUS, OHIO.

RAIN-WATER CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 675,963, dated June 11, 1901.

Application filed March 23, 1901. Serial No. 52,468. (No model.)

To all whom it may concern:

Be it known that I, WILBUR T. MILLS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Rain-Water Cut-Offs; and I do hereby 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.

The object of this invention is to provide a rain-water cut-off of simple and economical construction. Incidentally it is my object to provide a valve for such a device that shall be automatically operated to cut off the flow of water to the cistern when the cistern is filled.

In the accompanying drawings, Figure 1 is an edge elevation looking toward the left-hand side of the device as seen in Fig. 2. Fig. 2 is a sectional view. Fig. 3 is an elevation looking toward the right-hand side of Fig. 2. Fig. 4 is a sectional view on a plane indicated by the line A A, Fig. 2. Fig. 5 is an elevation of the valve removed. Fig. 6 is a central sectional view of the valve, and Fig. 7 is a view of antifriction-roller bearings and spindle for suspending the valve.

Like letters of reference in the several views designate corresponding parts.

In the main casing B is the intake that is connected with the pipe leading from the roof.

C is the outlet leading to the cistern.

D is the outlet leading to the sewer.

O is the valve that is hung at its upper end upon ways T, formed in the upper part of the main casing. The ways T are inclined rather sharply downward, and the valve is preferably furnished at its upper edge with a small axle or spindle *a*, on the projecting ends of which are small rollers *b*, that run in the ways T, so that the valve shall run easily in the operation to be hereinafter described. The upper ends of the ways are made horizontal or even slightly depressed, as seen at *t*, so that when the valve is pulled up and the suspending-rollers *b* enter that portion of the ways the valve will hang vertically, as indicated by broken lines, Fig. 2. Normally the lower end of the valve O rests upon a ridge *r* between the outlets C and D, but on the side toward the outlet D. A strap S is attached to a projection *p* on the upper edge of the valve, and this projection extends through and works in a slot *s* in the upper portion or cover E of the casing. When the valve O is down in the full-line position indicated in Fig. 2 the strap covers the slot *s* and prevents the escape of sewer-gas into the atmosphere near the ground. An idler-roller R, under which the strap is passed, serves to keep the strap down and also renders easy the manipulation of the valve.

When water is desired in the cistern, the valve is set to the broken-line position, Fig. 2, and when the cistern fills and the water rises in the casing the overflow presses against the lower end of the valve and tilts or throws the upper end thereof out of its seat, and once out of its seat the valve automatically drops to the full-line position, Fig. 2, thus shutting off the further flow of water to the cistern. In this operation the angle *c* of the casing serves as the fulcrum upon which the valve is tilted. In this full-line position water from the roof is diverted into the sewer and sewer-gas escapes at the roof. In the dotted-line position the rise of sewer-gas is checked altogether. It will be seen, therefore, that the only attention required in my cut-off is the setting of the valve when water is desired in the cistern.

What I claim, and desire to secure by Letters Patent, is—

1. In a rain-water cut-off, a main casing having a rain-water inlet and two outlets, one for the cistern and one for the waste or sewer, an inclined way in the upper part of said casing, a ridge between the said outlets and a valve suspended and slidably movable at its upper end in the aforesaid way with its lower portion resting on the side of said ridge toward the waste or sewer outlet, substantially as described.

2. In a rain-water cut-off, a main casing having a rain-water-pipe inlet and two outlets—one to a cistern and one to a waste or sewer, an inclined way in the upper portion of said casing, said way having a horizontal or slightly-depressed portion at its upper end, a valve movably supported at its upper end in said way and adapted to be supported in an

approximately vertical position in the said horizontal or depressed portion of said way, whereby pressure on the valve in the cistern-supply side of the casing shall cause said valve to automatically drop in said ways to cut off the supply to the cistern, substantially as described.

3. In a rain-water cut-off, a main casing, an intake therefor and two outlets—one for the cistern and one for the sewer or waste, a cover for the casing, a slot in the cover or top, a valve in said casing, and a strap attached to said valve adapted to close said slot when the valve is in position to cut off communication of the intake with the cistern, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILBUR T. MILLS.

Witnesses:
GEORGE M. FINCKEL,
SAMUEL W. LATHAM.