(No Model.)

C. H. ROHDE.

RAIN WATER CUT-OFF.

No. 533,749. Patented Feb. 5, 1895.

Fig 1.

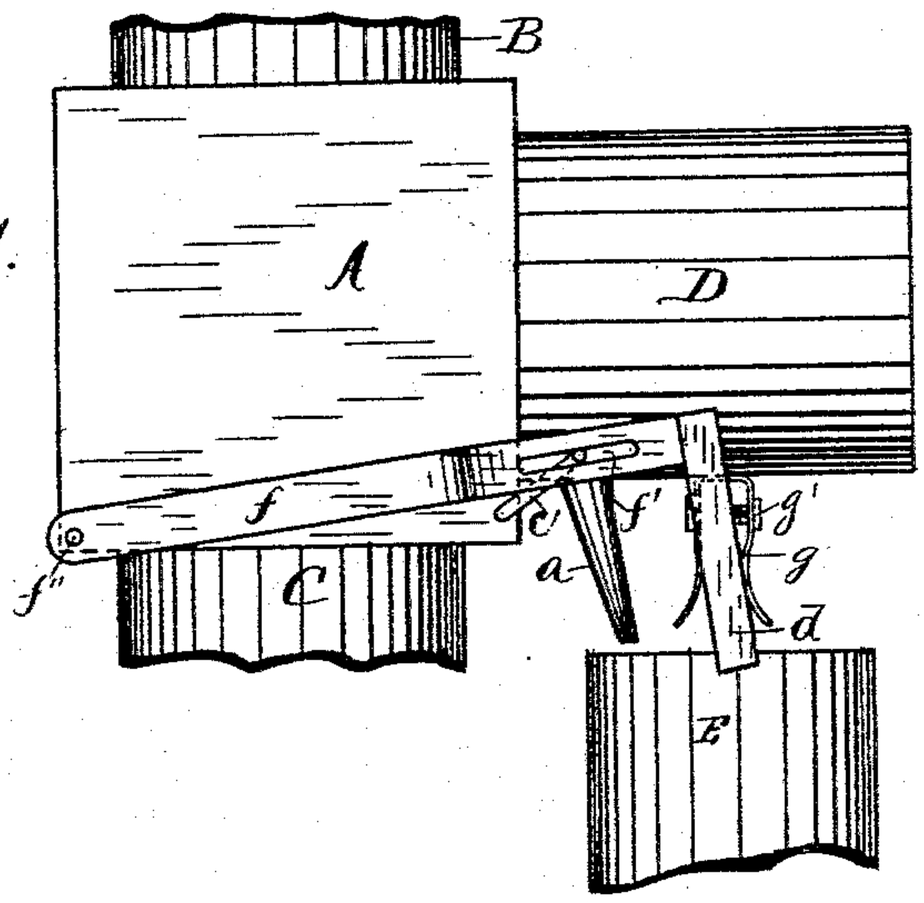


Fig 2.

Fig 3.

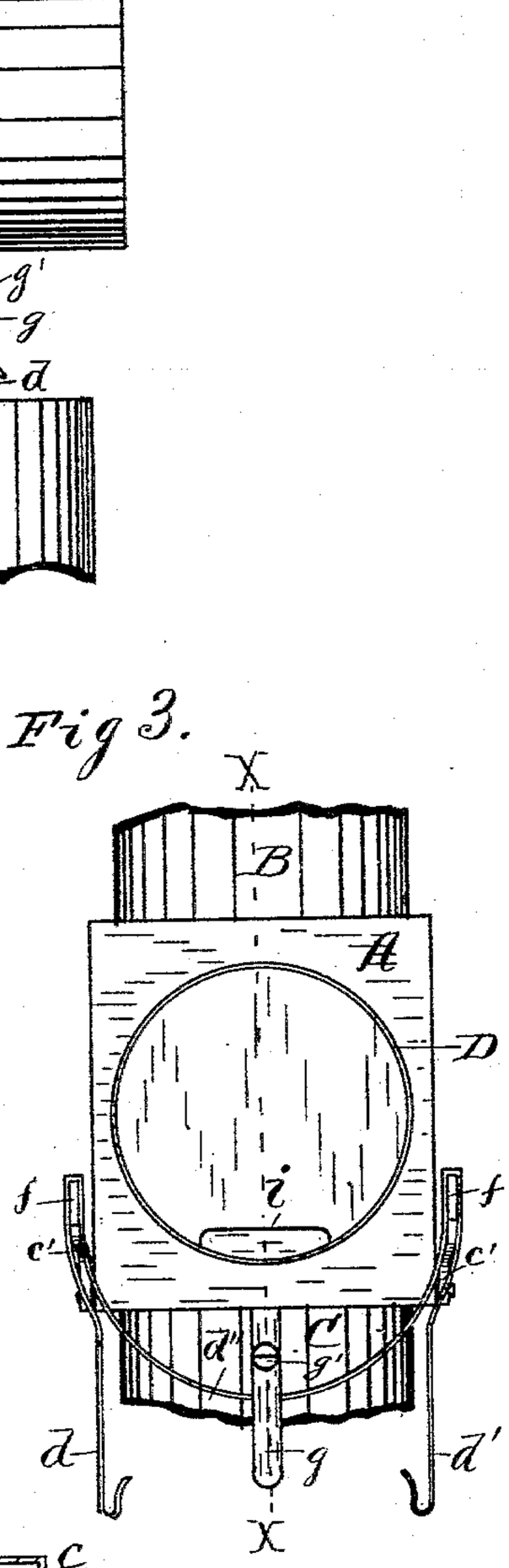
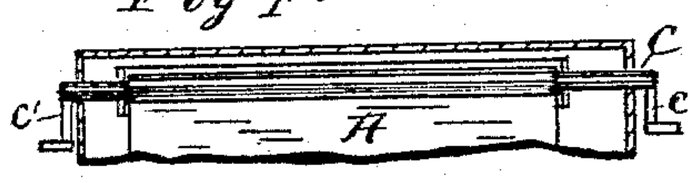


Fig 4.



WITNESSES:

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RAIN-WATER CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 533,749, dated February 5, 1895.

Application filed November 5, 1894. Serial No. 527,986. (No model.)

To all whom it may concern:

Be it known that I, CONRAD H. ROHDE, of Dayton, county of Montgomery, State of Ohio, have invented a new and useful Improvement in Rain-Water Cut-Offs; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to new and useful improvements in rain water cut offs, and has for its object to provide means for preventing the first water that falls upon the roofs of houses during rains from entering the cistern, thereby preventing dirt or other foreign matter from being conducted to said cistern, until after said roof has been sufficiently washed, at which time the rain water from said roof is automatically cut off from the waste pipe and permitted to enter the cistern.

To these ends my invention has reference to means to be fully described in the specification and pointed out in the claims.

Referring to the annexed drawings, Figure 1 is a side elevation of my improved rain water cut off, parts broken away; Fig. 2, a sectional view on the line *x*—*x* Fig. 3; Fig. 3, a front elevation, parts broken away; Fig. 4, a view of the bottom of the water box showing the crank shaft and bearings parts broken away and in section.

The device is constructed of sheet metal preferably tin, and consists of parts hereinafter described.

A, designates a water box, three sides of which are opened and provided with thimbles.

B, designates the thimble with which the pipe leading from the eaves trough connects, and C designates the thimble with which the pipe leading to the cistern connects. Both of said pipes being commonly known, it has not been deemed necessary to show them in the drawings or describe them.

D designates the thimble with which the waste pipe is connected, and in the bottom of which there is a cap (*i*) having a series of openings (*i'*) registering with a spout (*a*).

(*b*) designates a plate or valve, rigidly attached to a shaft (*c*) journaled in the lower sides of the box A. This valve is provided with circular flanges (*e*) and (*e'*) on its upper and lower sides corresponding in circular area to the openings in the thimbles C and D in which they are adapted to fit, as shown in full and dotted lines in Fig. 2. The outer ends of the shaft (*c*) terminate in cranks (*c'*) and enter slots (*f'*) in levers (*f*), of which there are two, one at each side of the box A pivoted at (*f''*). Upon the front ends of these levers there are fixed hooks (*d*) and (*d'*) having a segmental portion (*d''*) all of which parts are constructed of one piece of metal as shown in Fig. 3.

(*g*) designates a spring clamp fixed to the lower surface of the thimble D, and having an adjusting screw (*g'*) to increase or lessen the space between the engaging parts of said clamp. The function of this clamp is to engage the segmental portion (*d''*) of the hooks, in the positions shown in the various views.

E designates a bucket or other similar vessel that is detachably supported upon the hooks (*d*) and (*d'*), below the water spout (*a*).

Fig. 1 shows the bucket and hooks, in the normal position, when the valve (*b*) closes the opening in the thimble C of the cistern pipe. The first water therefore, falling from the roof, will enter the waste pipe through the thimble D. A certain portion of the water entering said thimble will have its force broken by the inclined perforated cap (*i*) and will run through the openings (*i'*) and spout (*a*) into the bucket E. As the bucket becomes full the weight thereof draws the supporting segment (*d''*) downwardly through the spring clamp (*g*). This throws the weight of the bucket on the crank ends (*c'*) of the valve shaft (*c*) and the valve (*b*) is thrown upward to close the opening in the thimble D as shown in dotted lines in Fig. 2, at which time the water is cut off from the waste pipe and permitted to enter the cistern through the thimble C and the pipe leading therefrom. The strength of the spring clamp (*g*) is sufficient to support the bucket only until it becomes filled with water. The time required to fill said bucket and thereby operate the valve is

of sufficient duration to allow a thorough cleansing of the roof before said valve is turned away from the thimble C.

Of course it is understood that the weight of the water delivered to the bucket should exceed the pressure of the water as it enters the box A from the roof. This being provided for, the apparatus will automatically operate the valve as described. It is also important that the valve be constructed so as to avoid any leaking through the openings when the valve is closing either of said openings. This is successfully done by providing said valve with the flanges (*e*) and (*e'*) which snugly fit the openings, or the valve itself may be constructed of cork, rubber packing or any suitable material.

The apparatus may be attached to the pipe leading from the eaves trough at any convenient point and there may be several immaterial changes made in the supporting devices for supporting the bucket and for operating the valve without departing from my invention.

Having described my invention, I claim—

1. In a rain water cut off, the combination with a water box provided with thimbles for the attachment of inlet and outlet pipes; of a valve located in said box; a crank shaft to which said valve is fixed; levers pivoted to the sides of said box provided with oblong slots in which the ends of said shaft move; a bucket supporting frame pivoted to said levers, and means for permitting a portion of the water from the roof to enter said bucket, whereby the valve is moved to enable the water to enter the cistern, substantially as described.

2. In a rain water cut off; the combination with the water box provided with thimbles for the attachment of the various pipes leading thereto and therefrom; of a valve located in said box; a crank shaft to which said valve is fixed; levers pivoted to said box into the slots of which the ends of said crank shaft project; a bucket supporting frame attached to said levers; a clamp attached to one of the thimbles to support said bucket support in a raised position, and to permit a release thereof under sufficient weight of the bucket; an opening in one of said thimbles through which a portion of the water passes to said bucket, substantially as described.

In testimony whereof I have hereunto set my hand this 29th day of October, 1894.

CONRAD H. ROHDE.

Witnesses:
JOHN NIEDERMAN,
S. A. DICKSON.