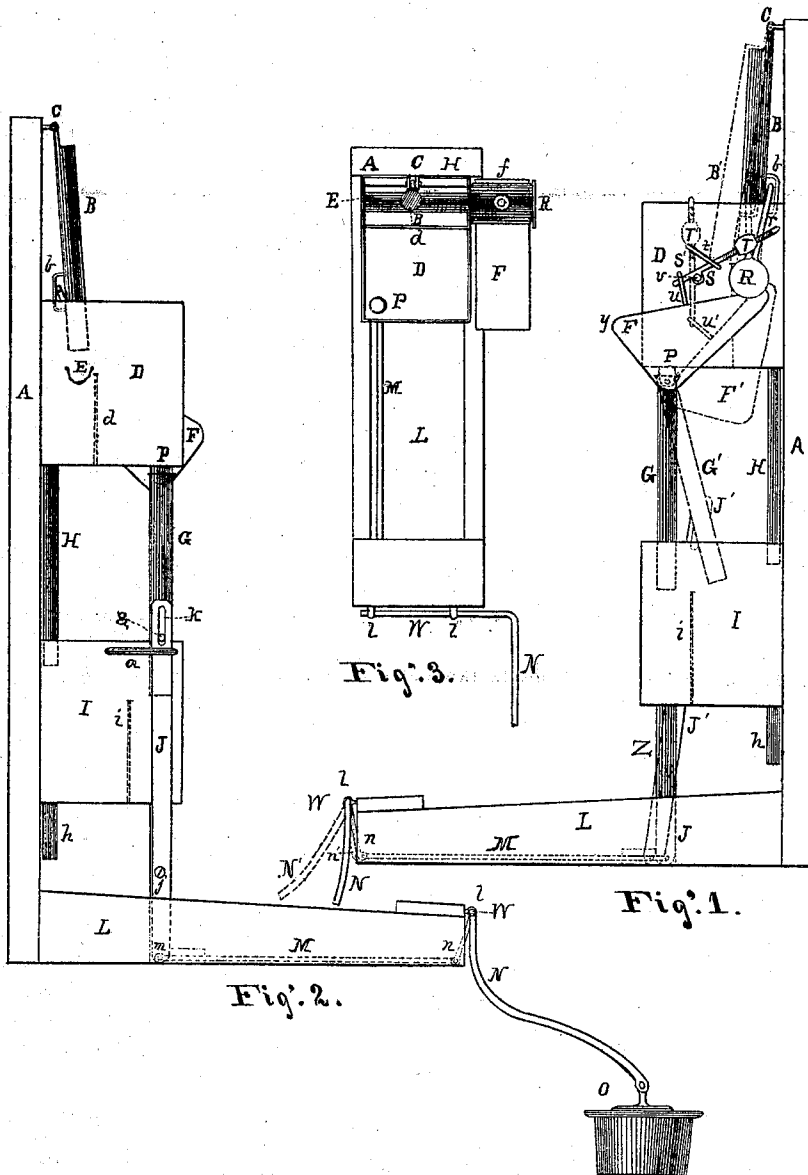


J. HUTH.
Rain Water Cut-Offs.

No. 150,691.

Patented May 12, 1874.



C. A. Perkins } Witnesses.
P. P. Birch

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by Jos. Abbott, Atty.

UNITED STATES PATENT OFFICE.

JOHN HUTH, OF SANDYVILLE, OHIO.

IMPROVEMENT IN RAIN-WATER CUT-OFFS.

Specification forming part of Letters Patent No. **150,691**, dated May 12, 1874; application filed April 14, 1874.

To all whom it may concern:

Be it known that I, JOHN HUTH, of Sandyville, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Rain-Water Cut-Offs; and that the following is a full, clear, and exact specification thereof, which will enable others skilled in the art to make and use the said invention.

My invention relates to certain improvements in the construction of rain-water cut-offs, whereby the water first running from the roof during a storm is cut off from the cistern until the impurities on the roof have been washed and carried off, when the water is automatically led into the cistern, and is allowed to run into the cistern until it is filled to the proper level, when it is automatically cut off from the cistern and allowed to run to waste.

The peculiar construction and combination of parts by which I accomplish these results are fully set forth in the following description.

In the accompanying drawing, Figures 1 and 2 are two side views of an apparatus illustrating my invention. Fig. 3 is a plan of the same.

A represents the side of a building, to which the cut-off is to be attached. L is a trough, leading to the cistern. D and I are water-boxes, having the dividing-partitions *d* and *i* in each, respectively; and B is a section of the water-conductor, pivoted on an arm, C, directly under the main conductor leading from the roof. A half-pipe, E, extends through the box D, and terminates in a headed pipe, R, on the outside, in which is an orifice, *e*. The hollow weight-box F is hung, by a collar, *f*, on the pipe R, so as to swing freely thereon, and to allow water to pass through the hole *e* into it. The trigger S is hung on a pivot, *v*, secured in the box D, and has on it a weight, T, which can be screwed to any desired position thereon. *u* is a staple secured in the box F, in which the end of the trigger S catches when said box is thrown up, as shown in full lines in Fig. 1. *t* is a staple secured in the box D, and serving to steady the movements of the trigger S. H is a pipe connecting the boxes D I on the waste side of the partitions *d i*. *h* is the waste-pipe; and P is a short pipe leading from the cistern

side of the box D, on the end of which is hung the swinging pipe section G. Z is a pipe connecting the cistern side of the box I with the trough L leading to the cistern. W N is a lever hung in staples *ll* at the end of the trough L, and having a hollow float, *o*, resting on the surface of the water in the cistern. *n* is an arm on the shaft W of the float-lever W N, the end of which is attached by a rod, M, to the lower end *m* of the lever J, which is pivoted at *j* on the pipe Z, and has a slot, *k*, at its upper end, through which projects a pin, *g*, secured in the swinging pipe G. The arm *r* is secured on the collar *f* of the swinging box F, and has a bent end, which projects through a staple, *b*, on the pipe B.

From this description, it will be seen that on the commencement of rain the bulk of the water coming down the pipe B will overrun the half-pipe E, and, passing into the waste side of box D, will run off through the pipes H *h*, but a part of such water will also run into the headed pipe R, and thence through the hole *e* into the box F, which, when filled to a sufficient amount, will become heavy enough to tilt the trigger S into the position S', shown by dotted lines, thus allowing the box F to swing down to the position F', shown by dotted lines, and, by the action of the arm *r*, causing the pipe B to swing into the position B', shown by dotted lines, thus directing the water from the pipe B into the cistern side of the box D, whence it passes through the pipes G Z and trough L into the cistern. The raising of the water-level in the cistern also raises the float O, and on the water attaining the desired level the lever N is raised by the float O into the position N', shown by dotted lines in Fig. 1, thus swinging the lever J and pipe G into the positions J' G', shown by dotted lines in Fig. 1, and directing the water from the pipe G into the waste side of the box I, whence it escapes through the pipe *h*. A small opening is left near the point *y* in the box F, so that when it swings into the position F' the water contained in it can escape, when the box F can be again swung up and supported by the trigger S, as before. By moving the weight T on the trigger S the amount of water required in the box F to tilt the trigger S,

and, consequently, the amount of time the water would be allowed to run to waste may be varied as desired.

Having thus fully described my invention, what I claim herein as new, and desire to secure by Letters Patent, is—

1. The swinging box F with arm *r*, and trigger S with adjustable weight T, in combination with the half-pipe E, headed pipe R, and swinging water-pipe section B, the several parts being arranged and operating substantially as specified.

2. The combination of the swinging pipe G with pin *g*, pivoted lever J with slot *k*, rod M, and two-armed lever *n* W N with float O, the

several parts being arranged and operating substantially as specified.

3. The rain-water cut-off herein described, consisting of water-boxes D I with partitions *d i*, swinging box F with arm *r*, trigger S with weight T, swinging pipe B, half and headed pipe E R, swinging pipe G, slotted lever J, rod M, and two-armed lever *n* W N with float O, the several parts being connected, arranged, and operating as described.

As evidence of the foregoing witness my hand.

Witnesses:

JOHN HUTH.

WILLIAM R. BLACK,
JOHN J. LEBOLD.