E. Stewart,

Water Steam Cut Off.

No. 113,108. Patented Mar. 28. 1871.

Fig. 1.

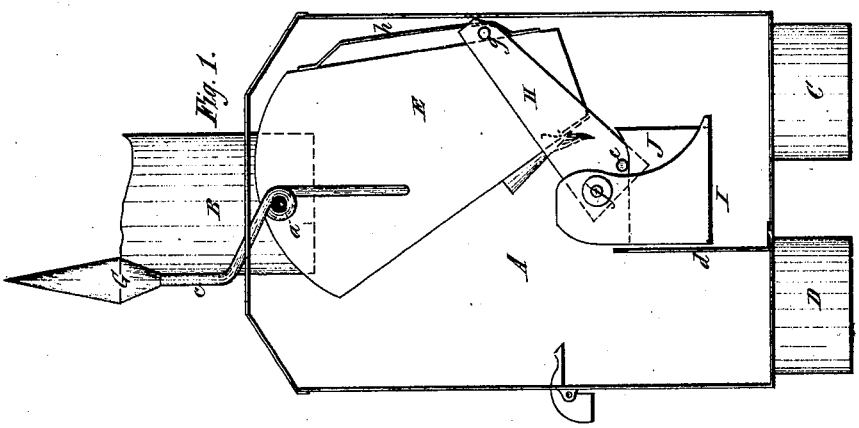
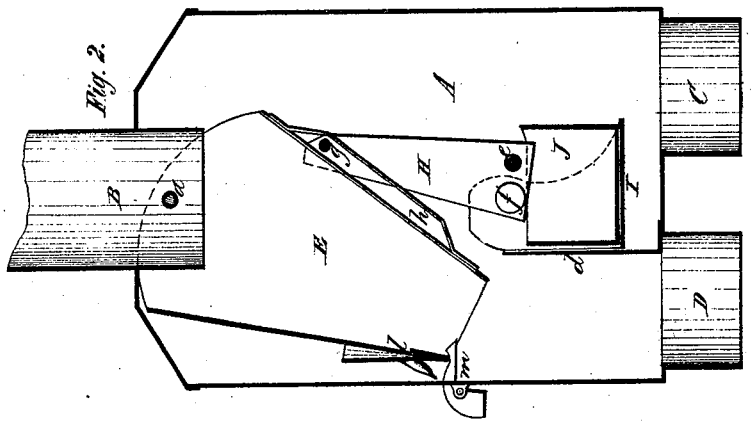


Fig. 2.



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EDWARD STEWART, OF FORT MADISON, IOWA.

Letters Patent No. 113,108, dated March 28, 1871.

IMPROVEMENT IN AUTOMATIC WATER-SPOUT CUT-OFFS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD STEWART, of Fort Madison, in Lee county and State of Iowa, have invented a new and useful "Automatic Water-Spout Cut-off;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing through letters of reference marked thereon, and which represents my apparatus in its two positions—

Figure 1 being that before or at the commencement of a rain, and

Figure 2 the position automatically assumed after the shower has continued a sufficient length of time to have washed off the roofs of the building to which it is attached.

This apparatus is intended for use in localities where rain-water is used for domestic purposes and is obtained from the roofs of buildings and stored in cisterns for future use.

With the ordinary system of spouting all the dust, dirt, and smut which accumulates in dry weather on the roof is washed off at the commencement of a rain and conducted into the cistern. This, of course, makes the water muddy for a time, but, moreover, eventually renders it unfit for culinary purposes.

To provide a remedy for this evil is the object of my invention, which consists in connecting with the leader-pipe a chamber having two discharge-pipes, and an automatic conductor, to direct the water for a given time at the commencement of a rain to and through a waste-pipe, and, after the roofs have been well washed, to change its position and conduct it to another pipe leading to the cistern or reservoir for future use.

To enable others to construct and use my invention I will now describe it by referring to the drawing, in which—

A represents a chamber, which may be of any suitable form, for connection at its upper end with the leader-pipe B, and provided with two discharge-pipes, C and D, the former of which conducts the water to waste, and the latter to the cistern or reservoir.

Within the chamber A is suspended, on a pivot, a funnel-shaped conductor, E, preferably of rectangular form in its horizontal cross-section, and has attached to it a weight, G, supported on an upwardly-extending rod, *e*, which serves to retain said conductor, when inclined toward either side of the chamber, in such position until changed by hand or automatically, as will be hereinafter described.

The lower part of the chamber A is divided by a plate, *d*, to insure the passage of the water down either one of the pipes C or D over which the conductor E may be arranged; and on that side of the plate *d* which communicates with the waste-pipe C is suspended on a lever, H, a shelf, I, on which is placed a pan or vessel, J.

The levers H have a fixed fulcrum at *e*, on the front and back of the chamber A, and the end pieces of the shelf I are pivoted to it at *f*, while their upper ends are connected by a rod, *g*, which works within a slot formed by one side of the conductor E and the strap or stirrup *h*.

The conductor is also perforated on the side, as at *l*, so that, when in position represented in fig. 1, a portion of the water passing through it will leak through these perforations into the vessel J, the desired amount of leakage being controlled by a slide or other suitable device for that purpose.

The operation of my apparatus will then be as follows:

The vessel J, being emptied, which may be done by opening a door or slide in one side of the chamber A, is placed upon the shelf I, and weight G is arranged in position represented in fig. 1. This swings the conductor E over the waste-pipe C, and through the lever H raises the shelf on which stands the vessel J, the weight G retaining all the parts in that position, so that, when it commences to rain, like the first washing of the roof, will pass from the leader B through the conductor E down the waste-pipe C, while a small portion, leaking through the perforations at *l*, will be caught in the vessel J until the latter is full enough to overcome, through the lever H, on which it is suspended, the inclination of the weight G, when, in its descent, the rod *g*, at the opposite end of the lever, will cause the conductor E to swing to the position represented in fig. 2, and the weight G, having passed in the direction of the arrow to the other side of its axis, will retain it in that position to conduct the water to the pipe D leading to the reservoir or cistern.

A latch, *m*, may also be pivoted at the side of the chamber A for the edge of the conductor to catch upon.

After the rain is over it is only necessary to empty the vessel J and swing the conductor and weight G back to the position represented in fig. 1, to be in readiness for a like action at the commencement of another rain.

What is here claimed, and desired to have secured by Letters Patent, is—

1. An automatic water-conductor, consisting of the pendent chute E, controlled and operated by the weight of the accumulated water in the vessel J, substantially as specified.

2. The combination of the chute E and its counterbalance G with the vessel J and lever H, all arranged within the chamber A, provided with outlets C and D, substantially as and for the purpose set forth.

EDWARD STEWART.

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