H. L. WELLS.

Automatic Cistern Cut-off.

No. 168,361. Patented Oct. 5, 1875.

Fig. 3.

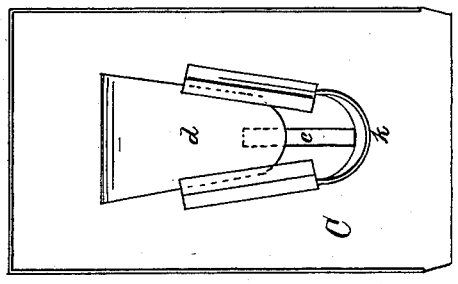


Fig. 2.

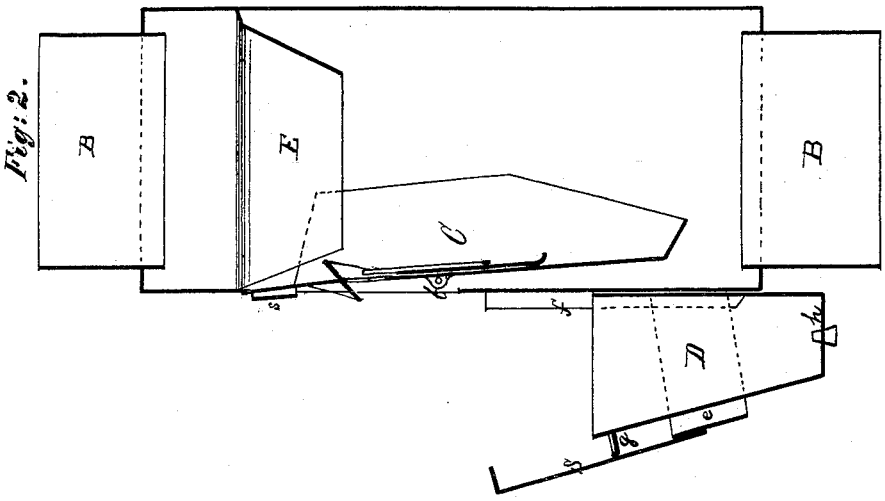
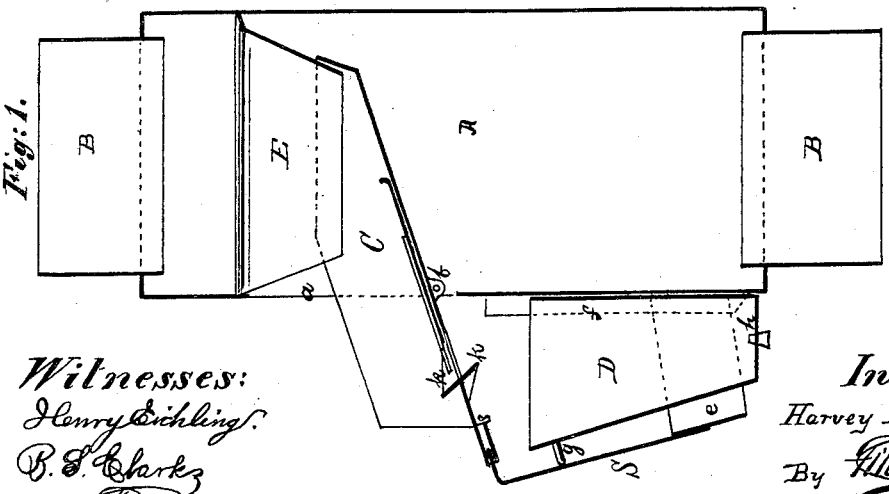


Fig. 1.



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UNITED STATES PATENT OFFICE.

HARVEY L. WELLS, OF BURLINGTON, IOWA.

IMPROVEMENT IN AUTOMATIC CISTERN CUT-OFFS.

Specification forming part of Letters Patent No. **168,361**, dated October 5, 1875; application filed August 9, 1875.

To all whom it may concern:

Be it known that I, HARVEY L. WELLS, of Burlington, Des Moines county, and State of Iowa, have invented an Improved Automatic Cistern Cut-Off, of which the following is a specification, reference being had to the accompanying drawings forming part of the same.

My invention is intended to obviate the flow into the cistern of water falling on and washing from the roof the dirt and other matter there collected during the early part of a rain-storm; and it consists in the combination, with a chamber arranged longitudinally between two sections of the leader-pipe, of a pivoted chute, which swings in a gateway in the side of the chamber, and is held in a horizontal position, thus opening the gateway and closing the passage through the chamber, allowing the first part of the rain-fall to escape as waste, by means of a leaf-spring engaged to the upper end of the chute, together with a reservoir or tank arranged on the exterior of the chamber, which, by being weighted with water allowed to pass into it through an opening in the chute, and thus caused to descend in sliding ways, operates automatically, by pressing outwardly against the leaf-spring, to disengage it from the chute, when the fall of water into the chamber upon the inner end of the chute causes it to swing to a vertical position, and thus close the gateway in the wall of the chamber, and open the passage through the chamber for the uninterrupted flow of the clean water into the cistern.

Figure 1 is a longitudinal sectional central view of my cut-off, showing the chute in a horizontal position. Fig. 2 is a similar view of the same, showing the chute in a vertical position. Fig. 3 is a plan of the chute.

A is the chamber, preferably rectangular in shape, arranged between two sections of the leader-pipe B, and having the gateway *a* in one side. C is the chute, pivoted on the rod *b*, so that it swings in the gateway *a*, and having the slotted gateway *c* near its upper end, provided with the adjustable gate *d*. S is a leaf-spring, mounted on a brace, *e*, as shown, and extending upward, so as to engage with the strap *s* on the upper edge of the chute. D is a tank, which is made, preferably, wider at that top than at the bottom in its lateral cross-section, as shown, arranged to slide vertically in ways *f* on the exterior of the chamber A, directly under the gateway *a*, and has the pin *g* fixed at its upper exterior edge, projecting outward against the spring S, and thus sustained, as shown. A vent, *h*, is made in the bottom of said tank, closed conveniently by a plug. E is an apron-piece or guard, arranged in the upper part of the chamber A, to prevent the escape of the water from the chute through the chamber when the chute is in a horizontal position. Small guards or dams *k* are arranged, as shown, around the slotted opening or gateway *c* on each side of the chute, to direct the proper flow of the water which passes into the tank D.

Now, it is evident that the cut-off may be adjusted in the position shown in Fig. 1, and a rain-storm occurring, the first washing of the roof will be prevented from passing through the chamber A into the cistern, but will flow over the chute C, and be passed off as waste; and that the tank D will be weighted by the flow of a portion of the water through the opening *c*, and, descending in the ways *f*, the pin *g* will press the spring S and disengage it from the chute, when the force of the water descending upon the upper end of the chute will act to swing the chute to a vertical position, as shown in Fig. 2, thus opening the passage through the chamber A into the cistern for the clean water.

It is also evident that, by means of the slotted opening *c* and the adjustable gate *d*, the flow of water into the tank D may be regulated, and a longer or shorter time consumed in filling the tank. By this means the roof may be washed for any length of time at pleasure.

I am aware that automatic cut-offs have been heretofore constructed having a pendent or swinging chute, operated by an accumulation of water in a tank arranged on the interior of the inclosing-chamber.

I do not claim broadly, therefore, a cut-off having these devices, intending to limit my

claim to the specific combination of the precise parts herein shown, and arranged as set forth; that is to say,

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

The combination, as an automatic cistern cut-off, of the chamber A, arranged between the sections of leader-pipe B, and having the gateway *a* and the aprons E, the swinging chute C, having the slotted opening *c*, provided with the adjustable gate *d*, together with the tank D, with its ways *f*, and the pin *g*, together with the leaf-spring S, as described, and for the purpose specified.

HARVEY L. WELLS.

Witnesses:
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