F. Fischer,

Cistern Cut Off.

No. 110,128. Patented Dec. 13. 1870.

Fig. 1.

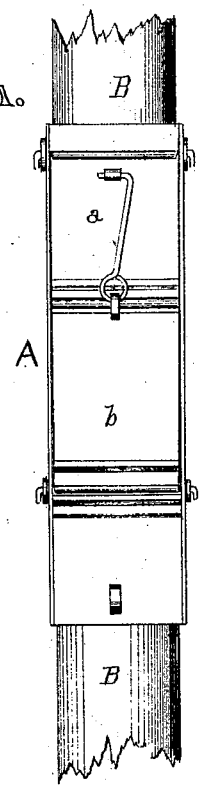
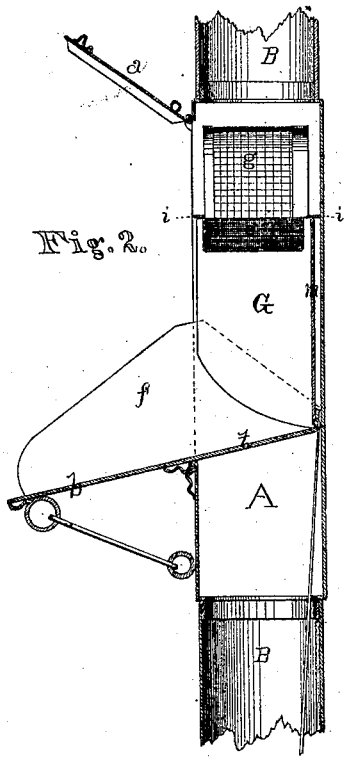
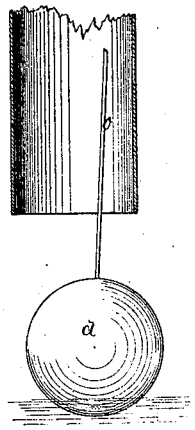


Fig. 2.





Witnesses:
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FRANK FISCHER, OF QUINCY, ILLINOIS.

Letters Patent No. 110,128, dated December 13, 1870.

IMPROVEMENT IN CUT-OFFS FOR CISTERNS.

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, FRANK FISCHER, of Quincy, in the county of Adams and State of Illinois, have invented a new and valuable Improvement in Automatic Cistern-Pipe; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my invention.

Figure 2 is a central vertical section of the same.

My invention relates to an improvement in means for conducting rain-water from the roofs of buildings to cisterns or tanks; and

It consists in the novel arrangement and construction of devices whereby the water may be automatically shut off from such cistern or tank when the water in the cistern rises to the required height.

A of the drawing represents an oblong box of suitable material, secured in a proper manner between two sections of the conductor-pipe B, near its entrance to the cistern.

In one face of this oblong box are placed two doors, *a* and *b*. The upper one, *a*, is hinged near the top of the box, so that it may be opened upward and outward, as shown on fig. 2.

At a proper distance from the bottom of the box is hinged the lower door, *b*. This door is provided with a rear extension, *h*, and so arranged that, when open, it acts as a spout and turns the water away from the entrance to the cistern; but, when closed, the water is allowed to pass freely into the cistern.

To accomplish this object, the door is so hinged that its rear extension *z*, when open, extends backward at a slight inclination, and forms a complete cut-off, preventing the water from descending into the pipe below it. To each edge of this door is secured vertical side-plates, *f*, designed to guide the water out of the box.

To the rear of this door is attached one end of the rod *o*.

This rod passes downward through the lower sections of pipe into the cistern, where it is secured to the float *d*.

In the upper part of the oblong box A, opposite the door *a*, is placed a concave strainer, *e*, of suitable material, for the purpose of collecting any foreign substances which may pass through the pipe.

To render this strainer strong and secure, another one, *g*, of coarser material, and constructed in the form of an arch, is secured to two of its upper edges, and these two strainers at their junction are so formed as to make a flanch, which rests upon the shoulder *i* of the box, as shown.

Below the shoulder *i*, within and parallel to the two sides and back of the box A, is constructed an inside casing, G, extending downward, its back *m* being longer than the two sides, reaching a point nearly opposite the hinge in the door *b*, to which door it acts as a stop, as shown.

The outer edges of the two sides are much shorter than this back-piece, and the lower edge of the side is curved downward to meet the lower part of the back, as shown.

In opening and shutting the door *b*, the vertical sides *f* of the door pass between the inside casing and the outside walls, thus preventing any water from passing below the door or spout into the cistern.

When not in use, or when water is passing into the cistern, the doors *a* and *b* are closed, as shown in fig. 1, the upper edge of the door *b* overlapping the lower edge of the door *a*. The water now passes into the cistern, and as it rises the float *d* also rises, pushing up the rear end of the door *b* gradually, and, finally, when the water reaches a proper height, the flow is turned off entirely from the cistern.

Claim.

The rectangular sectional supply-pipe A, having the automatic hinged valve *b z*, guide G, and float *d*, and strainers *g e*, substantially as and for the purposes specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

FRANK FISCHER.

Witnesses:

RICHARD JANSEN,

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