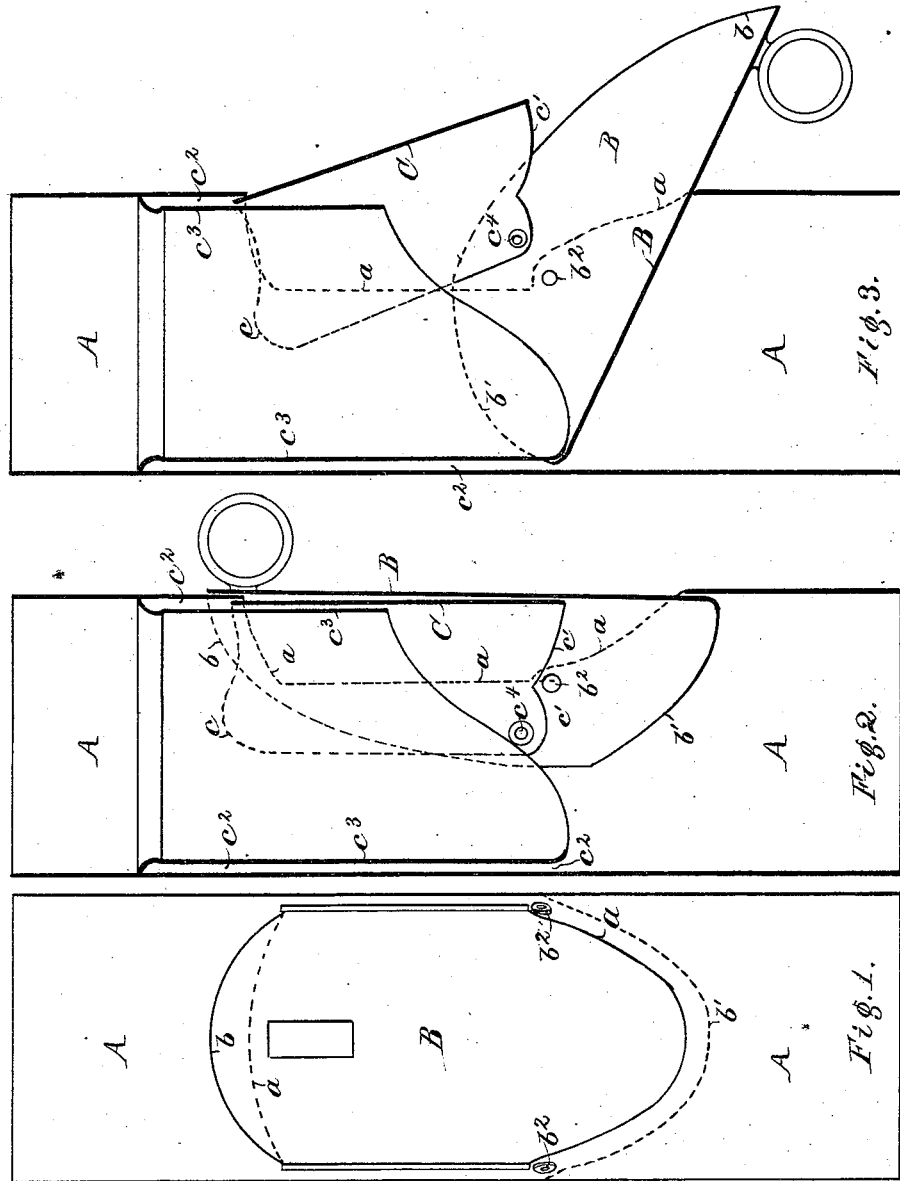


M. GMEINER.
Rain-Water Cut-Off.

No. 162,053.

Patented April 13, 1875.



Witnesses:
Chas. A. Meiner.
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UNITED STATES PATENT OFFICE.

MATHIAS GMEINER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HIMSELF AND HENRY PINS.

IMPROVEMENT IN RAIN-WATER CUT-OFFS.

Specification forming part of Letters Patent No. **162,053**, dated April 13, 1875; application filed February 23, 1875.

To all whom it may concern:

Be it known that I, MATHIAS GMEINER, of St. Louis, in the county of St. Louis and State of Missouri, have invented an Improved Rain-Water Cut-Off, of which the following is a specification:

As is well known, the first fall of rain, owing to the deposits contained in the troughs and spouts of buildings, becomes impure and unfit for cistern or household purposes. It is, therefore, necessary to allow said impure water to escape as waste; this done, to permit the pure water to be conducted to fill the cistern, &c.

My invention relates, therefore, to an improved construction of this class of cut-offs, and as will now more fully appear.

Of the drawing, Figure 1 is a side elevation. Fig. 2 is a sectional elevation; Fig. 3, also a sectional elevation, showing the position of the cut-off acting as a waste.

A is the spout, communicating to the cistern or the like. In the spout A I form an enlarged opening, *a*, which is of the constructive shape indicated in Fig. 1. It is through this opening that the water is directed to the waste or gutter by means of my improved cut-off, constructed as follows: B is the discharge snout or trough. This is of such a constructive shape as to form a discharge-gutter, presenting the upper and lower curved outlines *b b'*. (See figures.) The discharge-trough B is to control the face-opening *a* in the spout by closing or opening same; hence, I insert in the spout A the trough B, so that its lower edge *b'* shall project inside, and its upper edge *b* shall project outside, the spout A, and as shown in Figs. 1 and 2. In this position the trough B is riveted to the spout at both sides, (see *b''* in the figures,) and made capable of being drawn out or closed in the spout. The cut-off further consists of a top slide, C. This consists simply of a bent piece of spouting, its upper and lower edges *c c'* being curved, as indicated in Figs. 2 and 3. It is also inserted in the spout A in line with its face-opening, so as to control the upper part of same; hence, the upper edge *c* of the slide C I arrange to project and slide in the space *c''* formed by the annular inner spouting *c''* within the spout A. (See Figs. 2 and 3.) Its lower edge I rivet, both sides at

c'', to the discharge-trough B, as shown in Figs. 2 and 3. The top slide C and discharge-trough B thus pivoted together operate conjointly to open and close the face-opening of the spout. Fig. 2 shows the position of these parts when closed, and Fig. 3 when the cut-off is open.

Assuming the position of the parts to be as shown in Fig. 3, it will be perceived that the trough B rests upon the bearing-edge of the opening in the spout A. Further, that the lower edge *b'* of the trough B completely closes the spout A by forming a joint with the lower edge of the inner spouting *c''*. (See Fig. 3.) Whatever water passes down the spout A, therefore, falls upon the trough B and discharges out of same. At the same time the position of the top slide C, in Fig. 3, acts to direct the falling water into the middle of the trough B, and this it does, as is apparent, in such wise as to prevent overflow. The falling water passing through the spout A, when the cut-off is in above-stated position, passes out to the gutter or waste. After the impure water has been thus permitted to waste the operator closes the cut-off, and in doing so the parts assume the positions in Fig. 2. In the act of closing the trough B it actuates the slide C at first to move sufficiently inward, and is next drawn in vertical line by the complete closure of said trough *b*. The interior of the spout A is thus left open or free to allow the falling water to pass through the spout A, and to be conducted to the cistern.

What I claim is—

1. A rain-water cut-off, being a discharge-trough, B, and top slide C arranged to operate in a spout, in the manner herein shown and described, and for the purpose set forth.

2. The discharge-trough B, top slide C, pivoted with relation to each other, as herein shown and described, in combination with a spout, A, having face-opening *a* and inner spouting *c''*, to operate as and for the purpose set forth.

In testimony of said invention, I have hereunto set my hand.

MATHIAS GMEINER.

Witnesses:

WILLIAM W. HERTHEL,
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