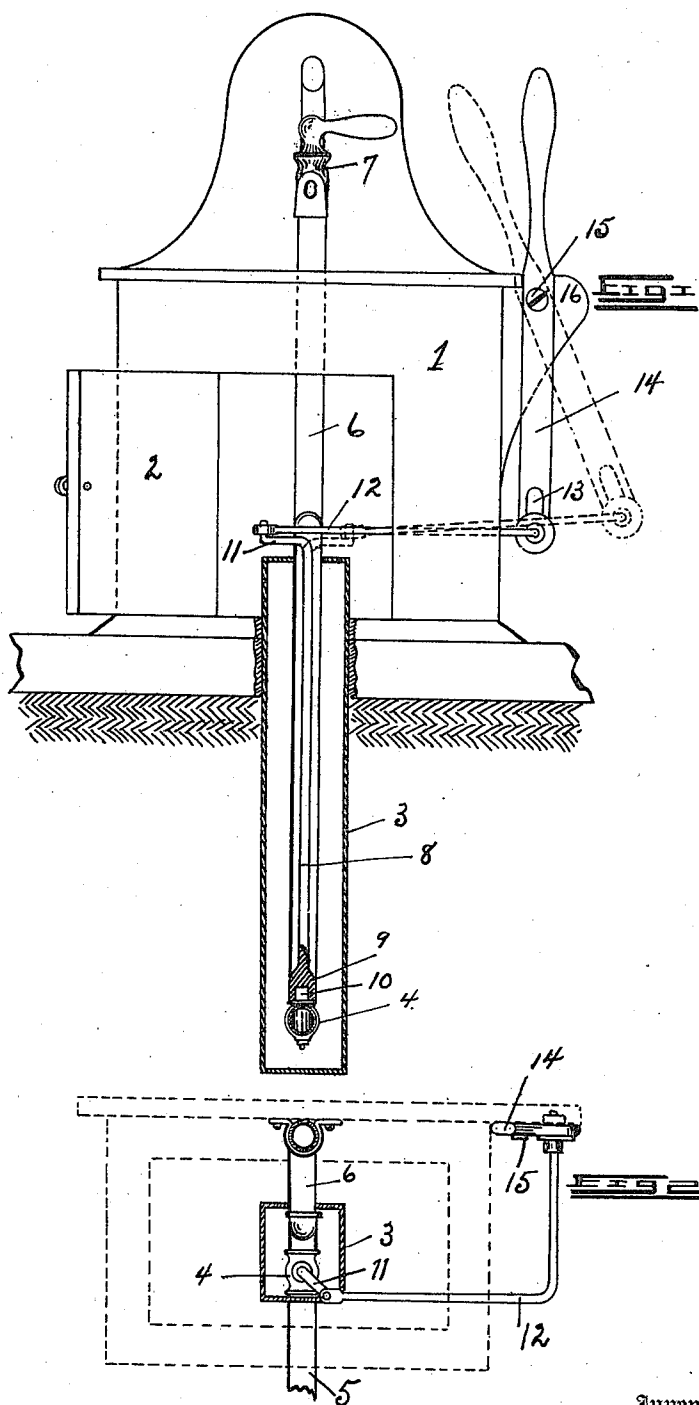


E. C. MARRS.
 CUT-OFF VALVE.
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974,899.

Patented Nov. 8, 1910.



Witnesses:
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Wm. Lait,

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UNITED STATES PATENT OFFICE.

ELMER C. MARRS, OF DETROIT, MICHIGAN.

CUT-OFF VALVE.

974,899.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed February 1, 1905. Serial No. 243,773.

To all whom it may concern:

Be it known that I, ELMER C. MARRS, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Cut-Off Valves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to means for operating the cut-off valve in water pipes, located in the ground below the freezing point, for the purpose of preventing the freezing of said pipes through a failure to close said cut-off, and consists in the construction and arrangement of parts hereinafter more fully set forth and pointed out particularly in the claim.

The object of the invention is to provide apparatus auxiliary to the ordinary water cock, by means of which the water may be turned on or off at the cut-off valve below the freezing point, said means being actuated from the point where the water is drawn, rendering impossible the freezing of the water pipe or pen-stock.

The above object is attained by the structure illustrated in the accompanying drawing, in which:—

Figure 1 is an elevation, partly in section, showing the application of my invention to an ordinary pen-stock. Fig. 2 is a horizontal section through the pen-stock or water pipe, and the top of the box or casing which embraces said pipe and cut-off valve, the actuating lever and cut-off rod showing in plan.

Referring to the characters of reference, 1 designates the ordinary cabinet commonly employed for supporting sinks and having a hinged door 2. Passing through the bottom of the cabinet and into the ground a sufficient distance, is a suitable box 3 having at the bottom thereof below the freezing point a cut-off valve 4 in the water supply pipe 5. Leading from said valve is the ordinary water pipe or pen-stock 6, which passes upwardly through the box 3 and cabinet 1, the upper end thereof overhanging the sink 17 and being provided with a water cock 7. Passing downwardly through

the box 3 is a rod 8 provided with a socket 9 in its lower end adapted to fit over the stem 10 of the cut-off valve 4, said rod being provided at its upper end with a crank 11 which projects above the top of the box 3. Pivoted at one end to said crank is an angular connecting rod 12 whose opposite end passes through a slot 13 in the lever 14 pivoted at 15 to a bracket 16 on the cabinet.

In employing this device, the water cock 7 is always left open and when water is desired, the lever 14 is actuated to open the cut-off valve 4 by a movement thereof, as shown by dotted lines in Fig. 1. When sufficient water has been drawn, the lever 14 is returned to its normal position, thereby closing the cut-off valve and shutting off the water supply, the rod 8 being rotated by the operation of the lever 14 through the crank arm 11 to which the connecting rod 12 is attached. Thus it will be seen that when the water is shut off, it is always shut off below the freezing point so that no water is left standing in the pen-stock or pipe 6, to freeze; the water which remains in said pipe after the cut-off valve is closed, passing out through the ordinary vent opening in said valve.

As ordinarily arranged, the cut-off valve can be operated only by opening the top of the cabinet and operating the valve through the crank arm of the rod 8, an operation which involves considerable trouble and time. By means of the lever 14 and the connecting rod 12, the opening and closing of the cut-off valve may be readily and easily accomplished.

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

The combination of a sink and cabinet, a water pipe extending from a point above said sink to a point in the ground below the point of freezing, a box passing through the bottom of said cabinet and extending vertically into the ground below the freezing point and surrounding said water pipe, said box projecting at its upper end into said cabinet, a water cock at the upper end of said pipe over said sink, a cut-off valve in said pipe at the bottom of said box below the point of freezing, a rotatable rod located in said box and projecting therefrom, said rod having a crank at its upper end and engaging the cut-off valve at its lower end

for operating said valve independently of
the water cock, a vertical lever adjacent said
cabinet, a horizontal connecting rod pivoted
to said lever and to said crank to enable the
5 water in said pipe to be cut off below the
freezing point independently of the water
cock, if desired.

In testimony whereof, I sign this specification in the presence of two witnesses.

ELMER C. MARRS.

Witnesses:

E. S. WHEELER,
I. G. HOWLETT.