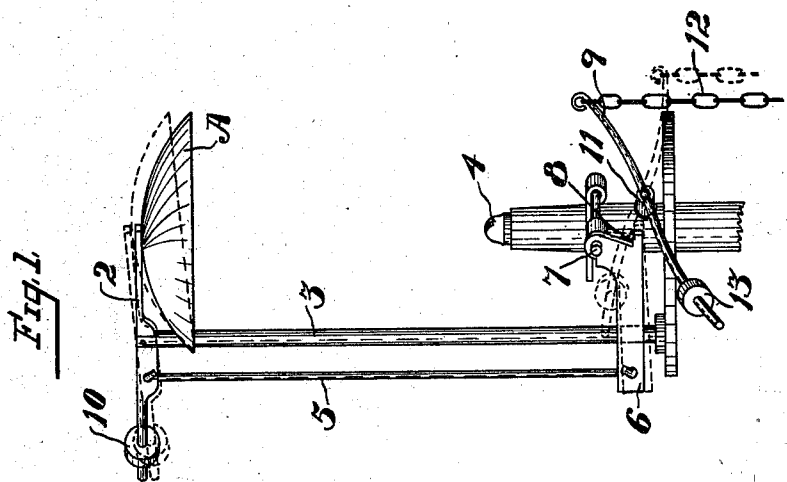
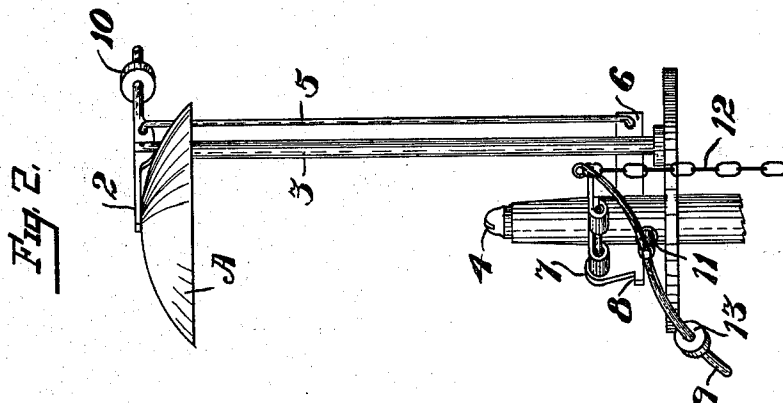


No. 738,579.

PATENTED SEPT. 8, 1903.

V. A. STROM.
AUTOMATIC GAS EXTINGUISHER.
APPLICATION FILED MAR. 19, 1903.

NO MODEL.



Witnesses,
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UNITED STATES PATENT OFFICE.

VICTOR A. STROM, OF ALAMEDA, CALIFORNIA, ASSIGNOR OF THREE-
FOURTHS TO CARL E. STROM, EDWARD R. TABER, AND FRANK H.
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AUTOMATIC GAS-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 738,579, dated September 8, 1903.

Application filed March 19, 1903. Serial No. 148,582. (No model.)

To all whom it may concern:

Be it known that I, VICTOR A. STROM, a citizen of the United States, residing at Alameda, county of Alameda, State of California, have
5 invented an Improvement in Automatic Gas-Extinguishers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which is
10 designed as a safety attachment for gas and like cocks.

It consists of a disk located in the path of the heat rising from the gas-flame when ignited and so contrived that the hot air thus
15 rising will raise the disk. Connections between this disk and a lever which actuates the gas-cock are so disposed that the gas-cock will be retained open while the gas remains lighted and the heat rises, but if by
20 any means the gas should become extinguished the weight of the disk is sufficient, when not acted upon by the heat, to release the gas-cock lever and allow it to be automatically closed by weight or spring.

My invention also comprises details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my invention, dotted lines showing valve opened. Fig. 2 is a side elevation from the other side of same.

4 represents a gas burner or jet, and 11 represents a cock, which may be turned in
35 one direction to allow the gas to flow and in the opposite direction to cut off the flow. I have shown this cock having a lever 9 extending from it, with a chain or pulling-cord 12, by which the lever may be pulled down
40 and turn the cock sufficiently to open and allow the gas to flow.

13 is a weight adjustable upon the opposite end of the lever 9 and designed to normally close the gas-cock when it is not held open
45 by extraneous means. This means consists of a lever 6, fulcrumed as shown at 7. This lever is made of considerable depth or may have an upwardly-extending arm between itself and the fulcrum 7, so that while its

outer end is approximately horizontal if it
50 be lifted the bottom of the lever will be caused to move outwardly with relation to a line vertically through the fulcrum-point 7. The end of this lever 6 has a notch formed in it, as at 8, and this notch is normally in such
55 position that when the gas-cock is opened one end of the lever 9 will be pulled down and the other will be raised correspondingly, so as to rest in the notch 8 of the lever 6, where it remains and retains the gas-cock open
60 after the gas has been lighted. The manner in which this is effected is as follows: A is a large mica or equivalent non-adjustable disk, preferably made concavo-convex or umbrella shape, and this is fixed to a lever-arm 2,
65 which is fulcrumed, as here shown, at the top of a standard 3, suitably supported from the gas-fixture or other convenient adjacent point. The lever 2 extends beyond the fulcrum-point on the side opposite to the disk and
70 has a counterweight 10, adjustable upon it. The lever 2 is connected by a rod 5 with the lever-arm 6, as shown. When the gas is lighted, the rising heat from the flame striking the disk A will raise it, tilting the lever 2, and
75 by means of the connecting-rod 5 the lever 6 is correspondingly moved. This causes the notched end at 8 to swing forward into line with the vertically-moving gas-cock lever 9, and the lower side of the notch 8 will thus
80 engage the lifted arm of said lever and prevent it from again dropping. As long as the gas is burning the action of the rising heat upon the disk above maintains the parts in this condition, but if by accident or otherwise
85 the gas should be extinguished the weight of the disk A is sufficient to overcome the counterbalanced opposite end of the lever 2 and to act through the connecting-rod 5 to lift the
90 lever 6. This draws the notched end of the lever back horizontally and out of the vertical plane of movement of the lever 9, which being thus released will be acted upon by the weight 13 and caused to drop, thus closing
95 the gas-cock. In this manner any danger from escaping gas will be obviated, and it will be understood that in place of the gas-cock-controlling lever 9 an elastic or spring arm

might be employed. It will also be understood that a bell-crank lever suitably fulcrumed and having a notched end would be an equivalent for the lever 6, as herein described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A gas-cock-controlling device consisting
10 of a lever by which the cock is normally closed,
a disk mounted upon a fulcrumed tiltable lever in line above the gas jet or burner, said disk being raised by the movement of the heated air from the flame, a fulcrumed catch,
15 connections between it and the disk-lever whereby the catch is projected to engage the gas-cock lever and retain it open while the flame is burning, said catch being retracted, to allow the cock to close, by the dropping of
20 the disk when the flame is extinguished.

2. A gas-cock safety attachment consisting

of a counterweighted lever connected with the cock and adapted to open it when turned to raise the weighted end, a fulcrumed notched lever adapted to engage the gas-cock lever
25 and hold it open, a disk located in line above the burner, a fulcrumed lever to the end of which the disk is fixed, connection between the fulcrumed lever and the catch-lever
30 whereby the raising of the disk by the heated gases while ignited acts to project the catch so as to maintain the gas-cock open said catch being retracted to release the gas-cock and allow it to be closed when the gas is extinguished and the heat ceases to act upon the
35 disk.

In witness whereof I have hereunto set my hand.

VICTOR A. STROM.

Witnesses:

JOHN DURSTON,

CHARLES PAEVEY.