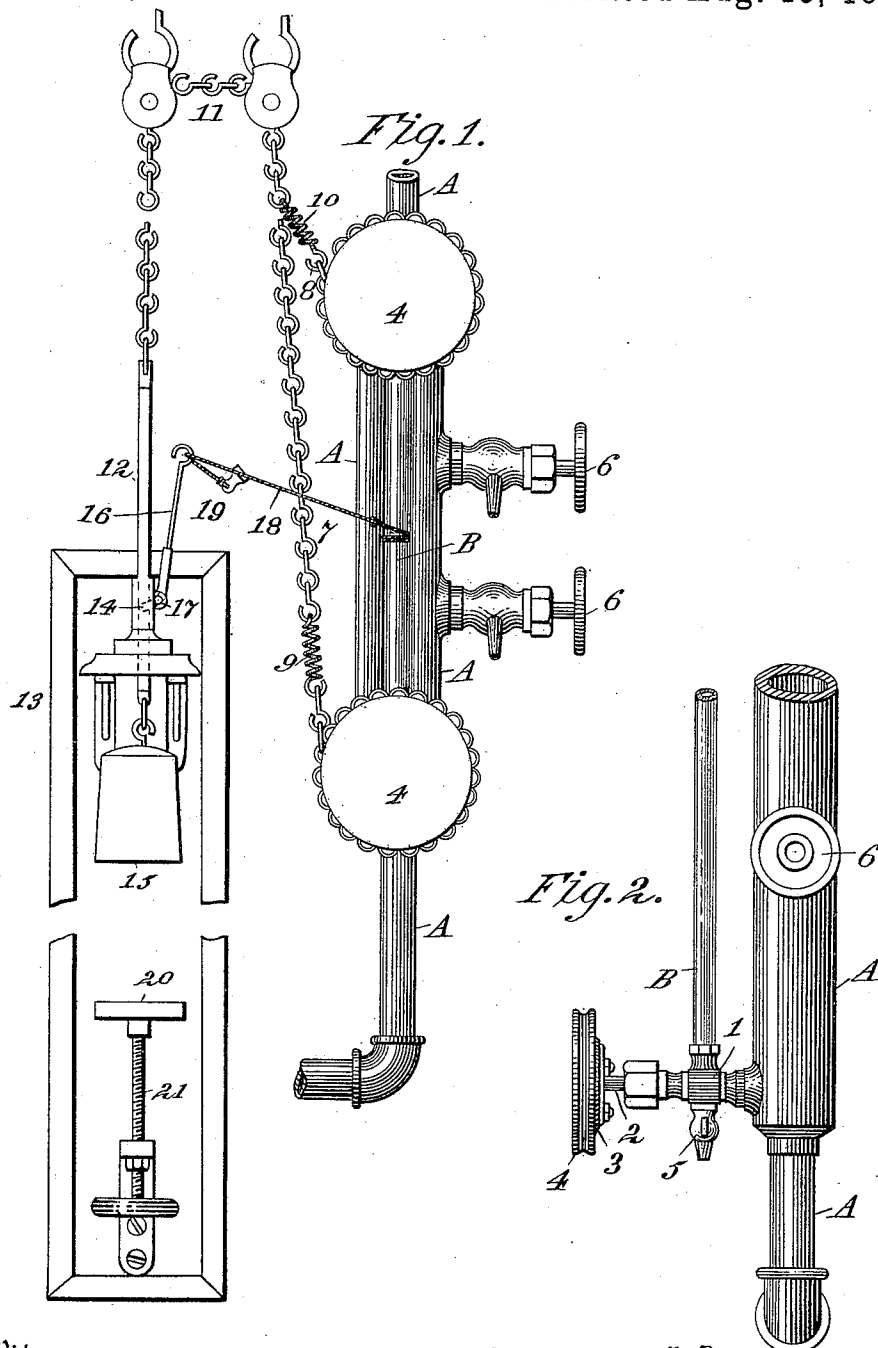


(No Model.)

R. A. WEIDMAN.
AUTOMATIC CUT-OFF FOR WATER GAGES.

No. 408,777.

Patented Aug. 13, 1889.



Witnesses
W. H. Matell
A. C. Brownell

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UNITED STATES PATENT OFFICE.

RICHARD A. WEIDMAN, OF GENEVA, NEW YORK.

AUTOMATIC CUT-OFF FOR WATER-GAGES.

SPECIFICATION forming part of Letters Patent No. 408,777, dated August 13, 1889.

Application filed April 29, 1889. Serial No. 309,136. (No model.)

To all whom it may concern:

Be it known that I, RICHARD A. WEIDMAN, of Geneva, county of Ontario, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Automatic Water-Glass Cut-Offs, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a side elevation of a part of the stand-pipe and one of the connections thereto, in which the water-glass is mounted, and showing the pulley upon the valve-stem.

This invention relates to devices for automatically cutting off the water and steam whenever the water-glass upon the boiler breaks, so as to avoid all danger from scalding, and to enable another glass to be inserted without danger.

The object of my invention is to produce a mechanism by which the water and steam are automatically cut off from the water-gage glass at the instant of the breaking, and by the breaking of the glass, which frequently occurs, and frequently people are injured thereby before the water and steam can be shut off by hand.

My invention consists in the several novel features of construction and operation hereinafter described, and which are specifically set forth in the claim annexed. It is constructed as follows:

A is the stand-pipe, connected to the boiler above and below the water-line in the usual manner, and B is the water glass or gage mounted in the connections 1, which are of ordinary construction, provided with a shut-off valve, of which 2 2 is the stem, provided with a hand-wheel 3, and upon this hand-wheel I secure a pulley 4; or the hand and wheel pulley may be all in one piece.

5 is a drip-cock connected to the bottom of the water-glass, through which it can be blown off in the ordinary manner. The upper end of the water-glass is mounted in the connection like that shown in Fig. 2, with a like valve and a like pulley 4 mounted upon the valve-stem.

At 6, I show ordinary tricocks mounted in the stand-pipe A.

Around the pulleys 4, I mount the chain or belts 7 8, provided with releasing-springs 9 and 10, the chains 7 8 being connected together, and from the connection leading over a pulley or pulleys 11, suspended from the ceiling or other convenient point, and leading thence downward and connected to the rod 12, which passes through the top of the case 13, and is provided with a notch at 14, and the lower end of this rod is connected to a weight 15. The point of the lever 16 beyond its fulcrum 17 fits in the notch 14 when the weight 15 is elevated, and the top of this lever is connected to the water-glass by the cord 18, tied around the glass and provided with a tightener 19, so that whenever the cord is released by the breakage of the glass the point of the lever 16 is disengaged from the notches in the rod 12, and the weight drops, carrying with it the rod 12, and producing a strain upon the chains 7 8 sufficient to rotate the pulley 4 far enough around to close both valves above and below the water-glass simultaneously and automatically, and instantaneously shutting off the flow of steam and water from the stand-pipe through the water-glass connections. The length of the drop of the weight 15 may be regulated by adjusting the height of the platform 20 upon the screw 21.

What I claim is—

A cut-off comprising water-glass connections mounted in the stand-pipe and provided with cut-off valves having pulleys upon the outer ends of the valve-stems, belts upon said pulleys connected to a drop-weight, a drop-weight, a lever supporting the drop, and a cord connected to the lever and a water-glass and released by the breakage of the glass, substantially as described.

In witness whereof I have hereunto set my hand this 17th day of April, 1889.

RICHARD A. WEIDMAN.

Witnesses:

H. P. DENISON,
A. H. POND.