

(No Model.)

A. A. AMUEDO.
Low Water Indicator.

No. 240,636.

Patented April 26, 1881.

Fig. 1

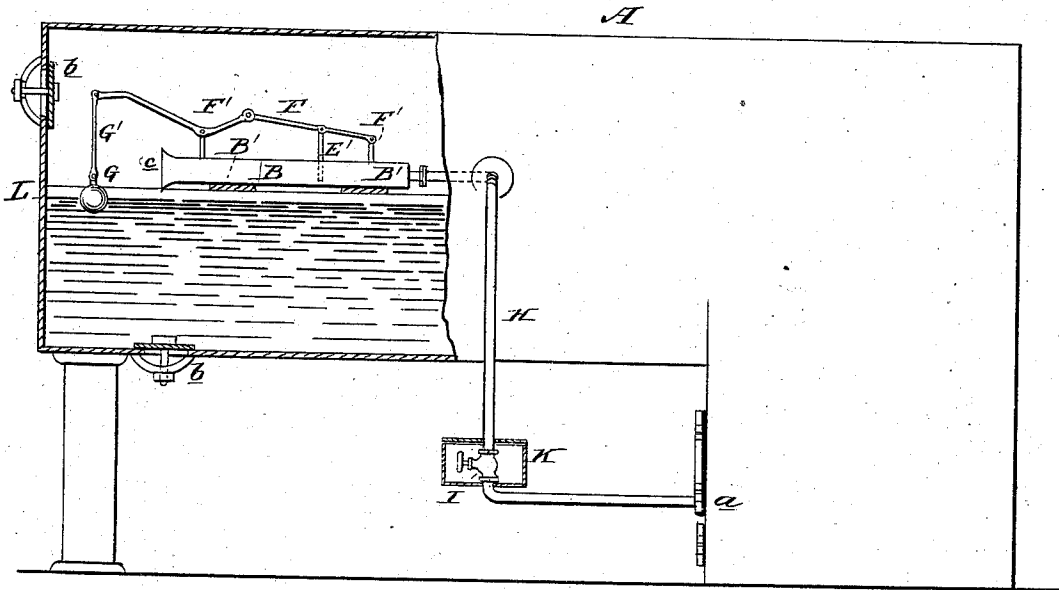
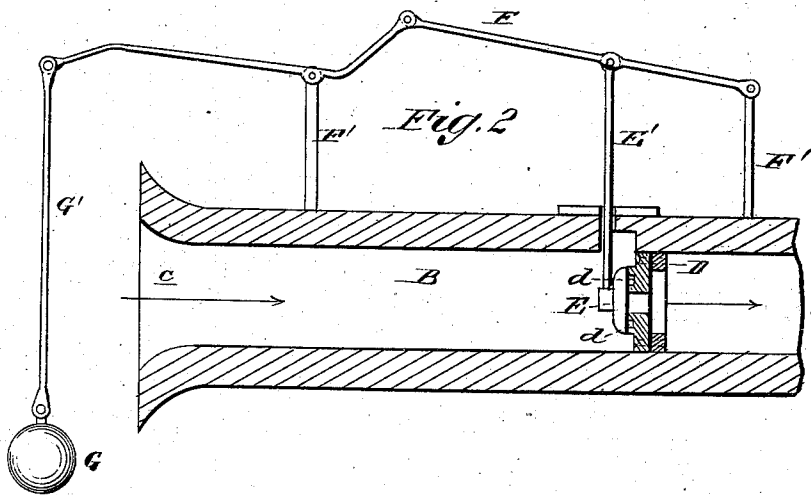


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANTONIO A. AMUEDO, OF ALGIERS, LOUISIANA.

LOW-WATER INDICATOR.

SPECIFICATION forming part of Letters Patent No. 240,636, dated April 26, 1881.

Application filed September 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO A. AMUEDO, of Algiers, parish of Orleans, Louisiana, have invented a new and Improved Low-Water Indicator, of which the following is a specification.

This invention relates to that class of devices which are designed to be applied to boilers for automatic extinguishment of the boiler-fires when the water in the boiler evaporates to a point below the low-water line.

Figure 1 is a side elevation, partly in section, showing my improvements as applied to a boiler; and Fig. 2 is an enlarged sectional elevation of a portion of my improvement.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the boiler, and *a* the fire-box thereof, and *bb* are the man-holes.

B is a cylinder, having a bell-mouth, *c*, supported in a horizontal position within the boiler, at the low-water line thereof, on the braces or supports *B' B'*, said cylinder B and its connections being preferably placed near a man-hole, so that it can readily be examined and put in order, if necessary, whenever the boiler is cooled down.

D is a perforated diaphragm or valve-seat, fixed, by screws or other devices, within the cylinder B, and having steam-channels *d* on its face, that the valve may be more sensitive or more easy to move.

E is the sliding valve closing over the diaphragm D, and *E'* is the valve-stem jointed to the lever F, and extending down through the cylinder B to connect with the valve E.

F represents the jointed lever fulcrumed on the standards *F'*, that extend upward from the cylinder B; and G is the ball-float connected with the free end of the lever F by a rod, *G'*, so that said float G shall rest on the surface of the water in the boiler A. Said float-rod *G'*

and valve-stem *E'* are made or are designed to be adjusted to such lengths that when the float G falls, with the water in the boiler, below the low-water line L therein, the weight of the float G will operate, through the lever F, to lift the valve E from off its seat D, and thereby give a passage to steam, through the cylinder B and the pipe H, that is connected to its rear end, into the fire-box *a*, to extinguish the fire therein. This pipe H is provided with a globe-valve, I, within easy reach of the operator, and said valve I is inclosed in a box, K, that is designed to be kept locked, so that the valve I may not be tampered with, and said valve I is to be kept open for the free passage of steam. When the boiler-fire shall have been extinguished by the steam passed through the cylinder B and pipe H, the operator will unlock the box K and close the valve I until the boiler is refilled and the valve E replaced in its seat D by the lifting of the float G.

By the application of this device to boilers explosions arising from an insufficiency of water in the boiler may be entirely prevented.

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

1. A low-water indicator constructed substantially as herein shown and described, consisting of cylinder B, provided with valve-seat D, valve and rod *E E'*, jointed lever F, float and float-rod *G G'*, and valved connecting-pipe H, as set forth.

2. The combination, with the boiler A and fire-box *a*, of the cylinder B, provided with valve-seat D, and valve and rod *E E'*, jointed lever F, float and float-rod *G G'*, and valved connecting-pipe H, substantially as herein shown and described.

ANTONIO A. AMUEDO.

Witnesses:

WM. APPLGATE,
GEORGE WILLIAM STILES.