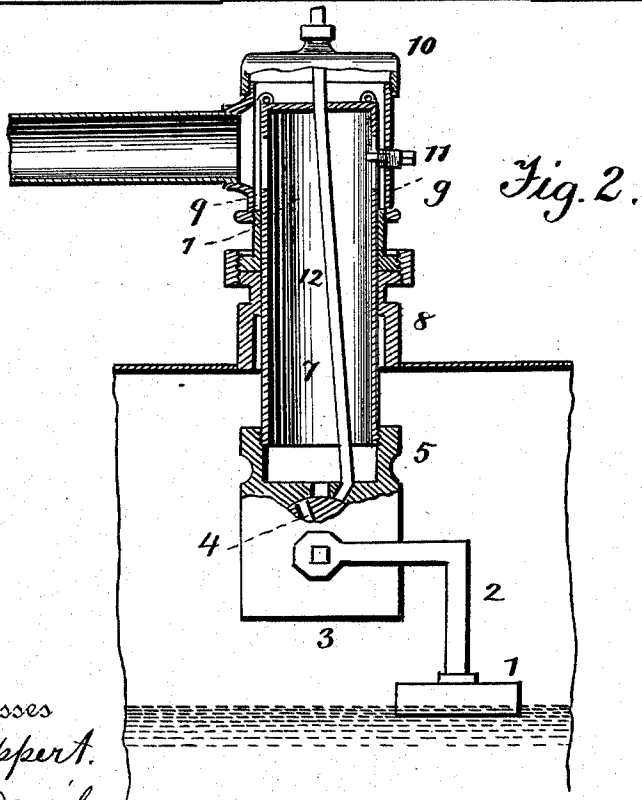
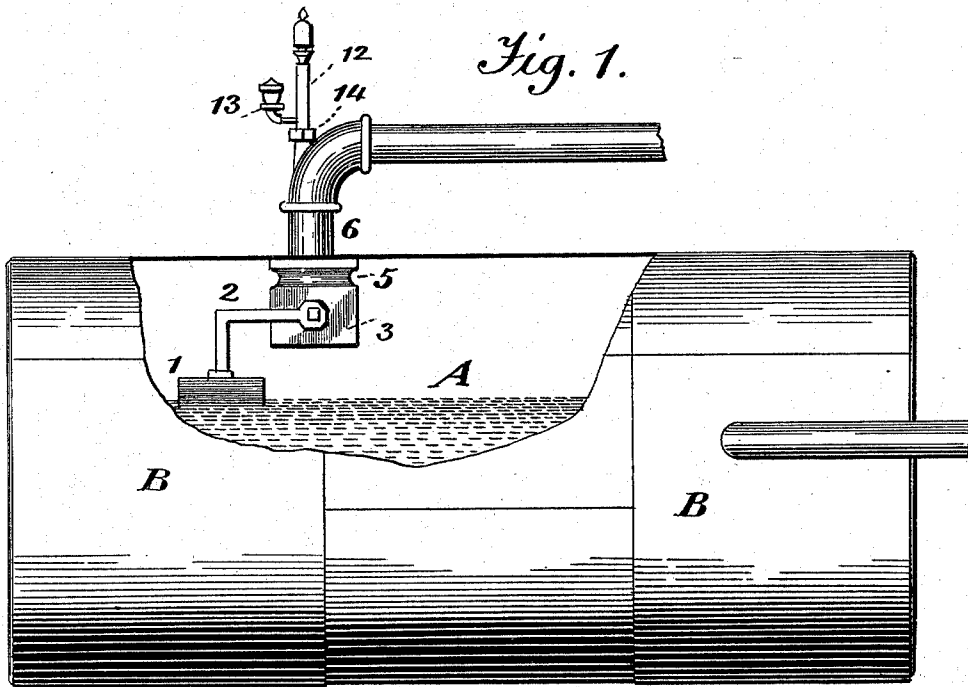


(No Model.)

J. W. & H. W. FOX.
WATER REGULATOR FOR BOILERS.

No. 527,417.

Patented Oct. 16, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

JESSE W. FOX AND HARISON W. FOX, OF ALVERTON, PENNSYLVANIA.

WATER-REGULATOR FOR BOILERS.

SPECIFICATION forming part of Letters Patent No. 527,417, dated October 16, 1894.

Application filed April 6, 1894. Serial No. 506,534. (No model.)

To all whom it may concern:

Be it known that we, JESSE W. FOX and HARISON W. FOX, citizens of the United States, residing at Alverton, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Water-Regulators for Boilers; and we 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.

The invention relates to feeding water to a boiler automatically by means of a float connecting with a valve in the water or steam-supply pipe, and consists in the combination of instrumentalities hereinafter described and pointed out in the claims.

Figure 1 of the drawings is a side elevation of a boiler with my invention applied thereto, and partly broken away; Fig. 2, a longitudinal vertical section.

In the drawings, A represents the desired water line of a boiler B and to keep it at this level is the object of the invention.

1 represents the float; 2, the crank which connects the float with the valve-stem; 3, the valve-box in which is located the valve 4.

5 is a screw-cap and 6 is a pipe that screws in the boiler.

7 is an inside pipe to raise or lower the float and 8 a collar to fit on the pipe in boiler.

9 is a T-pipe with a screw collar 10 thereon.

11 is the plug in T-pipe to raise and lower float and 12 the whistle stem.

13 is the oil cup and 14 the packing-piece on the whistle stem.

The oil cup is intended for lubricating the valve in the boiler, while the whistle will give an alarm when the water-supply has failed, or anything has occurred to prevent its feed to the boiler.

It will be perceived that the float and valve in boiler may be raised or lowered by means

of pipe 7 and when we do not wish to do this, we substitute the modifications of 6 and 9 shown in Fig. 1 of the drawings.

When the float has been once adjusted, it really does not need any attention but we prefer to make it adjustable from the outside of the boiler. It works the pumps and inspirators in a mill with so much exactitude that the boiler level is shown by the glass gage to be at the same point for the whole day, thus giving drier steam and requiring less fuel than usual to give the same power. The water will never get so low as to let the flues burn or the crown sheet be sprung, or so high as to generate wet steam. It can be put in or on the outside of any boiler or any tank where steam is to be generated.

In United States Patents No. 103,539 and 217,346, the valve is liable to corrode and stick by coming in contact with sulphur or minerals in the water while our oiler keeps our valve free from corrosion and allows it to raise and lower the float.

Having thus described all that is necessary to a full understanding of our invention, what we claim as new is—

1. The pipes 7, 8, 9, the screw-cap 10, the screw-plug 11 whose inner end passes through a slot of pipe 7, the pipe 12 adjustably connected by a nut with the cap 10 and attached to the valve-box 3; whereby the valve-box and its connections may be vertically raised or lowered as described.

2. The pipe 13 holding the oil-cup and the whistle pipe 12 combined with the same pipe leading to the valve-box, the valve and the float whereby the valve may be oiled and the whistle blown through the pipe which supplies steam to the pump as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JESSE W. FOX.
HARISON W. FOX.

Witnesses:

J. P. LOVE,
D. R. COUGHENOUR.