

*Darby & Moon,*

*Indicator.*

*No. 107,341.*

*Patented Sept. 13. 1870.*

Fig. 1.

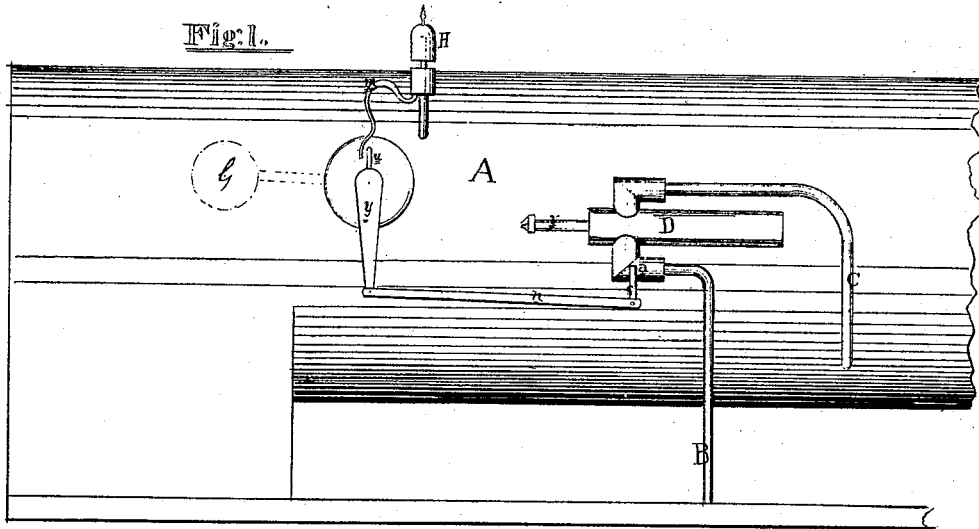
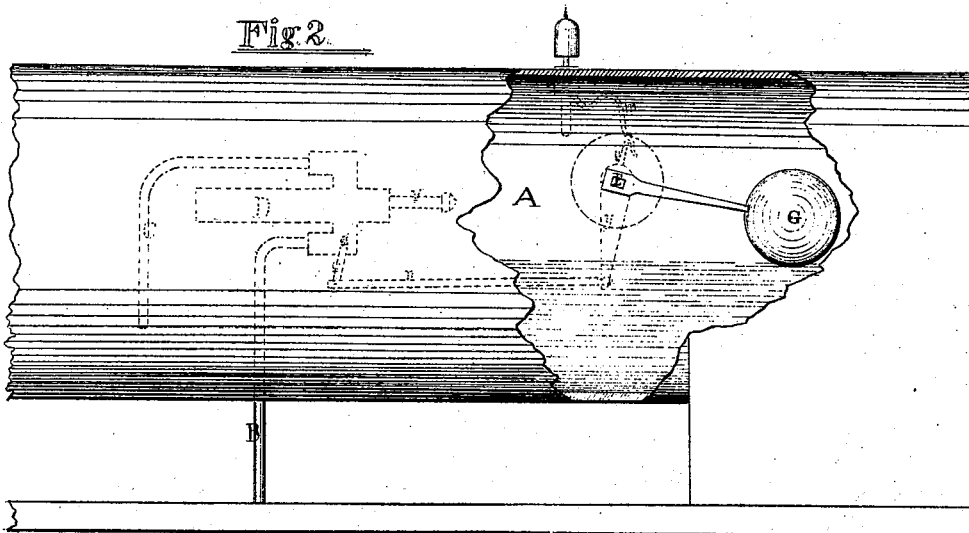


Fig. 2.



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# United States Patent Office.

GEORGE W. DARBY AND AMOS S. MOON, OF BLANCHESTER, OHIO.

Letters Patent No. 107,341, dated September 13, 1870.

## IMPROVEMENT IN WATER-REGULATOR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, GEORGE W. DARBY and AMOS S. MOON, of Blanchester, in the county of Clinton and State of Ohio, have invented a new and valuable Improvement in Boiler-Regulators; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of our invention.

Figure 2 is a partial vertical section, showing the interior of the boiler.

Our invention relates to means for preventing steam-boiler explosions, and consists in a novel arrangement of the pump with the steam-boiler, together with novel means for opening the valve of an alarm-whistle.

A of the drawing represents a steam-boiler;

B, the suction-pipe; and

C, the delivering-pipe of our pump.

D represents the pump proper, which is firmly attached to the side of the boiler.

The pipe O passes inside the boiler, delivering the water therein, which the pipe B receives from the tank.

We place a small valve in the lower arm of the pump, at *a*, to which we attach the crank *c*, and to the handle of said crank we affix the pitman *n*, in the manner shown.

The letter *v* represents the piston of the pump, to the head of which the motive-power is applied.

We affix a square block in the side of the boiler, packing the same securely, and make a cylindrical opening therein, adapted to receive the shaft, next mentioned.

The letter E represents a shaft passing through and rotating in the opening above described.

To the outer end of this shaft we attach the crank

*y*, which is united at its lower end with the pitman *n*, as shown.

The letter G represents a float attached to the inner end of shaft E, and arranged to operate therewith, in the manner represented.

On the top of shaft E is a pin, *u*, firmly attached, and arranged for actuating the bent lever *m* of the steam-whistle.

H represents our steam-whistle connected with the side of the boiler. In the lower end of this whistle is a valve, to which the upper end of the lever *m* is united. When this valve is opened, the steam from the boiler rushes through it and blows the whistle.

Our device operates as follows:

When the float G is raised by the water in the boiler beyond the point desired for the water-line, the pitman *n*, operating on the crank *c*, closes the supply-pipe, and no more water is admitted; and again, when the float falls below the desired water-line, the pin *u*, operating in conjunction with the bent lever *m*, opens the valve in the steam-whistle, and thereby gives alarm.

We are aware that a patent for an indicator has been granted to Wm. McCormick, dated December 17, 1867, which invention we hereby disclaim; but

What we claim as our invention, and desire to secure by Letters Patent, is—

The boiler-regulator, consisting of the pump D, valve-crank *c*, pitman *n*, shaft E, provided with the pin *u*, and float G, lever *m*, and steam-whistle H, all constructed and arranged as set forth.

In testimony that we claim the above, we have hereto subscribed our names in the presence of two witnesses.

GEORGE W. DARBY.  
AMOS S. MOON.

Witnesses:

JOSEPH KELSEY,  
JAMES WATKINS.