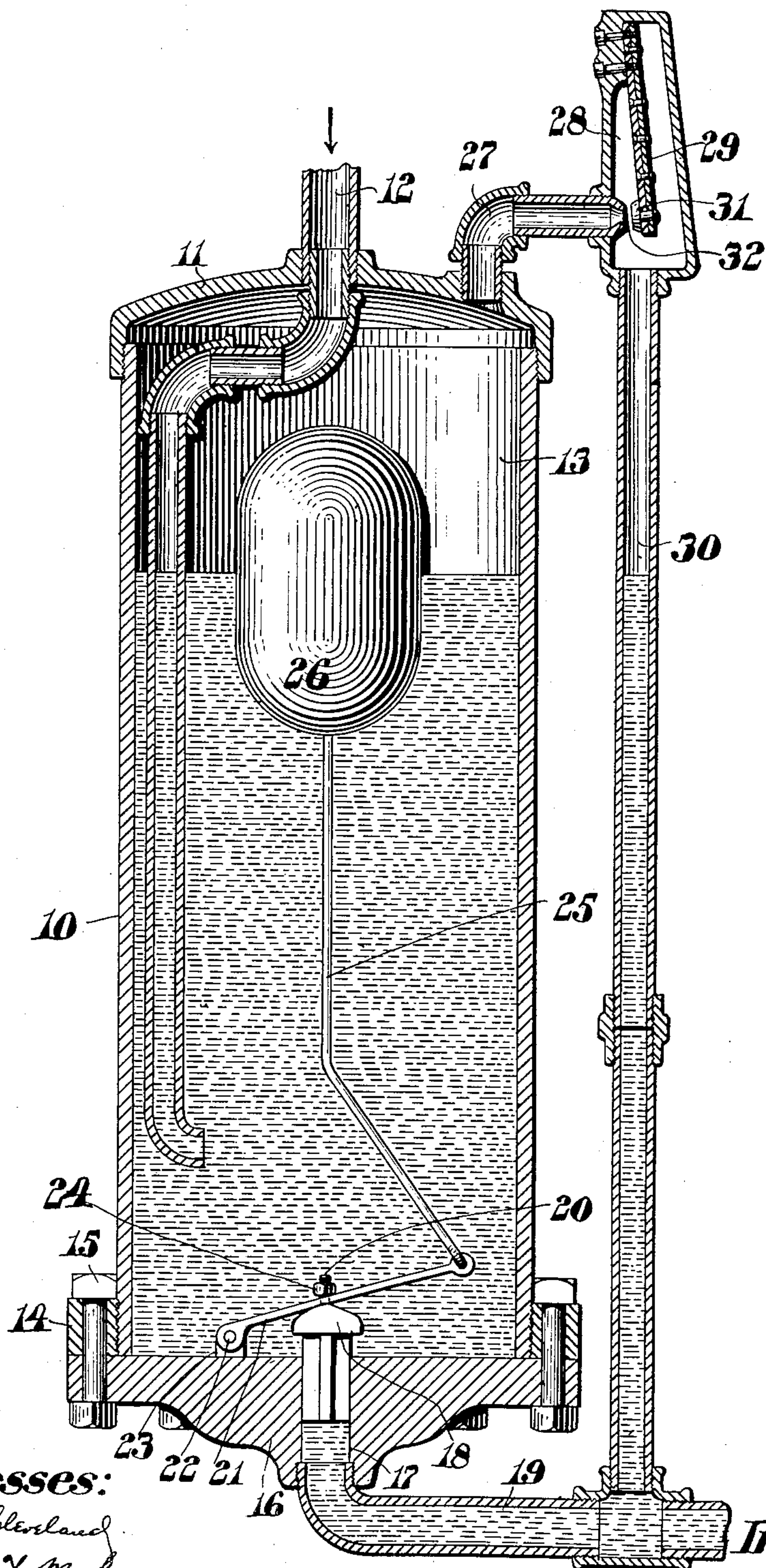


No. 810,423.

PATENTED JAN. 23, 1906.

T. MARCOTTE.
STEAM TRAP.

APPLICATION FILED AUG. 22, 1905.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

THOMAS MARCOTTE, OF MAGOG, CANADA.

STEAM-TRAP.

No. 810,423.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed August 22, 1905. Serial No. 275,244.

To all whom it may concern:

Be it known that I, THOMAS MARCOTTE, a citizen of the United States of America, and a resident of Magog, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Steam-Traps, of which the following is a specification.

This invention relates to steam-traps, and particularly to that class of traps which have a float working in the water of condensation to actuate the discharge-regulating valve; and it consists in providing the steam-trap with an auxiliary outlet closed and opened by means of a thermostatic device.

It consists, further, in certain novel features of construction and arrangement of parts which will be understood readily by reference to the description of the drawing and to the claims to be hereinafter given.

The drawing represents a vertical section of a steam-trap embodying the features of this invention.

In the drawing, 10 represents a cylindrical casing, the upper end of which has threaded thereto the member 11, through which the inlet 12 communicates with the interior chamber 13. The inlet-pipe 12 has an extension thereto within the chamber 13, extending nearly to the bottom of said chamber. To the lower end of said casing 10 is secured a collar 14, to which by bolts 15 is secured a member 16, provided with a central passage 17, in which a main valve 18 is mounted. The passage 17 communicates with an outlet-pipe 19 for the discharge of the water of condensation.

The valve 18 has secured thereto a threaded stem 20, passing through a lever 21, pivoted at 22 to a lug 23, secured to the upper side of said member 16. The stem 20 is threaded and has mounted thereon a nut 24 for adjusting the position of said valve 18 in relation to said lever 21. To the outer end of said lever 21 is secured a connector 25, to the opposite end of which is secured a float 26.

The member 11 is provided with an auxiliary outlet 27, communicating with a chamber 28, in which is mounted a thermostatic valve-operating device 29, adapted to close

communication with said chamber 28 from said chamber 13 under steam heat. The chamber 28 communicates, by means of a pipe 30, with the outlet 19. The chamber 13 is partially filled with water of condensation, and the discharge-orifice of the inlet-pipe 12 is beneath the normal level thereof. As the water mixed with steam enters through the pipe 12 the steam therein will pass through the water contained within the chamber 13 and become condensed, increasing the amount of water within said chamber and causing the float 26 to rise and open the valve 18 to permit the discharge thereof through the outlet 18 without losing any of the steam.

In the event of an excessive amount of water being admitted to the chamber 13, which cannot be readily taken care of through the passage 17, it will be cared for through the by-pass 27 28 30. Whenever steam begins to pass through this by-pass, the thermostat 29 will operate to cause the valve 31 to close the orifice 32 and prevent the further passage of steam through said chamber 28.

The main valve 18 is so constructed and located that it is impossible for any steam entering the chamber 13 to escape therethrough. As the thermostat 29 will operate to close the orifice 32 under steam heat, the steam entering the chamber 13 will be condensed therein.

It is believed the operation of the invention will be thoroughly understood without further description.

This makes a very simple steam-trap, very effective in its operation, and owing to its vertical position economizes space, which is often very desirable.

Having thus described my invention, I claim—

1. In a steam-trap, the combination of a float-chamber, a float therein, an inlet, an outlet, a valve therefor operated by said float, an auxiliary outlet at the top of said float-chamber, and means for closing said auxiliary outlet under steam heat.

2. In a steam-trap, the combination of a float-chamber, a float therein, an inlet, an outlet, a valve therefor operated by said float, an auxiliary outlet at the top of said float-

chamber, and a thermostat connected with said outlet and adapted to close the same under steam heat.

- 5 3. In a steam-trap, the combination of a float-chamber, a float therein, an inlet, an outlet, a valve therefor operated by said float, a discharge-pipe from said outlet, an auxiliary outlet at the top of said float-chamber and communicating with said discharge-pipe,

and a thermostatic device interposed between said auxiliary outlet and said discharge-pipe and adapted to close the same.

Signed by me at Boston, Massachusetts,
this 8th day of August, 1905.

THOMAS MARCOTTE.

Witnesses:

WALTER E. LOMBARD,
EDWIN T. LONCE.