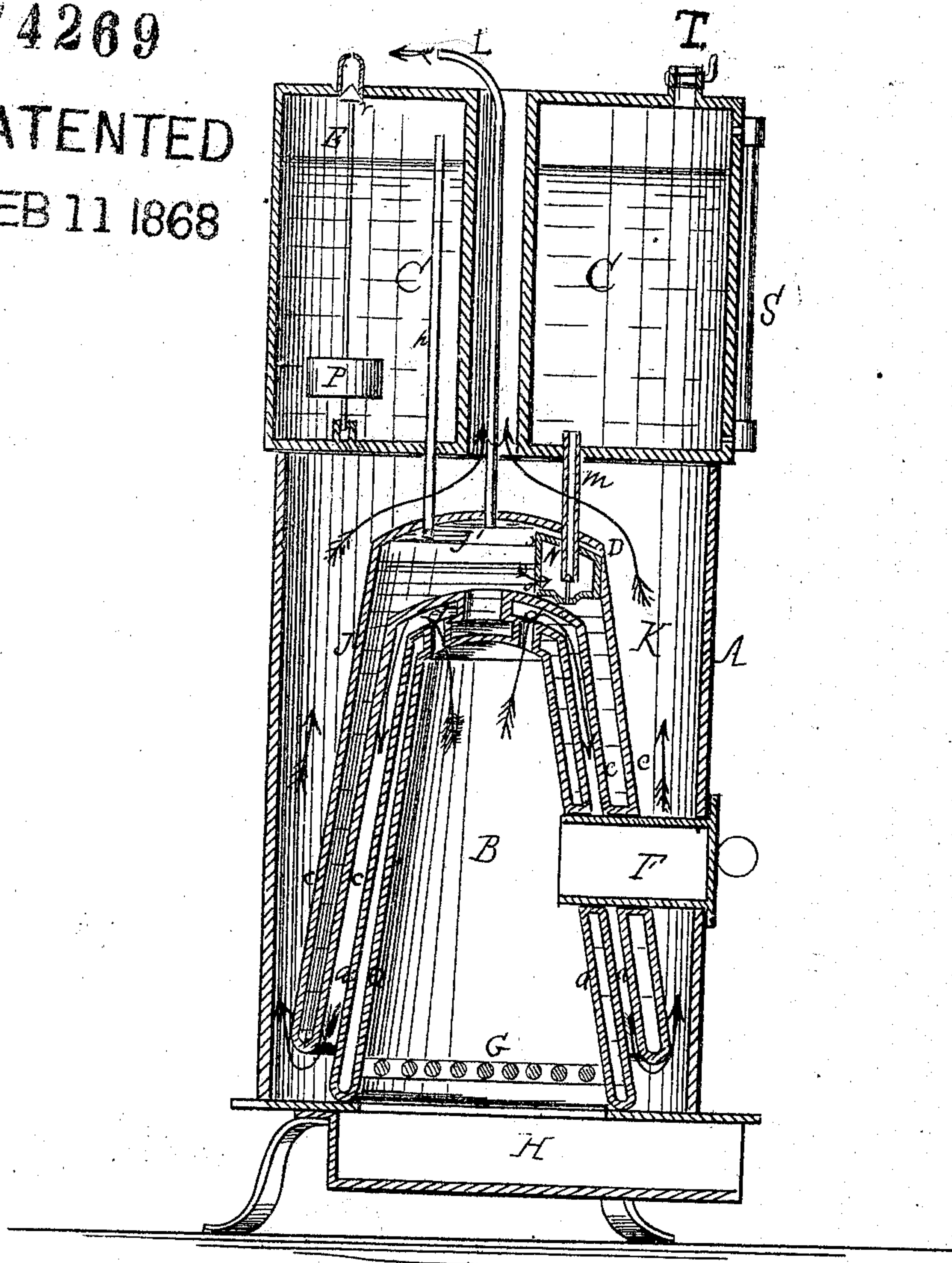


V.D. Anderson's Steam Generator.

74269

PATENTED

FEB 11 1868



Witnesses,
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Inventor:
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Per [Signature]
Attorneys

United States Patent Office.

V. D. ANDERSON, OF MILTON, WISCONSIN.

Letters Patent No. 74,269, dated February 11, 1868.

IMPROVEMENT IN STEAM-GENERATORS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, V. D. ANDERSON, of Milton, in the county of Rock, and State of Wisconsin, have invented a new and useful Improvement in Steam-Generator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has for its object the construction of a portable apparatus for generating steam, for domestic and other purposes; and the invention consists in the peculiar formation of the fire-box, and in the construction and combination of parts, as hereinafter described.

The drawing represents a vertical central section of the generator.

Similar letters of reference indicate corresponding parts.

A represents the outer shell; B represents the fire-box; C is the water-reservoir; D, the feeder; E, the alarm-whistle; F is the door through which the fuel is introduced; G represents the grate, and H the ash-pit. The fire-box is conical in form, and may be described as a double shell, containing water. These double walls, with water between them, are marked *a*. Surrounding the fire-box there is another formation or section, marked J, of similar shape, having also double walls, with water between the walls, the upper portion of which forms the steam-space of the generator, as seen at J'. The walls of this section are marked *c*. There is a space between this section and the fire-box sufficiently wide to form a flue. The products of combustion pass into this flue, through flue-tubes *d d*, from the fire-box, and then descend and pass around the bottom of J, and up into the space within the outer shell A, as seen in the drawing. This space is marked K. The smoke and products of combustion are discharged from the generator through a flue, which passes upward through the water-reservoir C, as seen in the drawing, and as indicated by the arrows. L is a pipe, through which the steam is taken for use. The water is fed into the generator through the tube *m*. N is a box-float, with apertures *o o* in its side, by which it is connected with both the steam and the water-space of the boiler. *p* is a pipe, which connects the steam-space J' of the generator with the reservoir above the water, which produces an equilibrium of pressure, so that the water falls into the generator by its own gravity when the valve is open. The boiler-end of the tube *m* terminates in the float N, with a valve, which is attached to the float. The tube *m* being fast in the reservoir C, and connected with the steam-space, when the float descends, the valve is lowered from its seat in the tube, and water from the reservoir will descend, and pass into the water-space of the generator, thus supplying it. When there is a sufficiency of water, the float will rise, and close the valve. The float slides up and down on the tube *m* as the water rises and falls in the generator. There is another float, P, in the reservoir, which is attached to a rod, and which operates a valve, *r*. When there is water in the reservoir sufficient to buoy up the float, the valve *r* is kept closed. When the water is exhausted, and the float descends, it opens the valve, and steam is blown off, thus notifying the attendant of the fact. A whistle may be blown by such discharged steam, if desired. S is a water-gauge or indicator. T is the pipe through which the reservoir is supplied with water.

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

The combination and arrangement of the fire-box B, having double walls *a*, grate G, and apertures *d*, with the water-jacket J, automatic feeder D N *o m*, reservoir C, alarm E P *r*, pipes L *p*, water-gauge S, and casing A, all constructed and operating substantially as and for the purpose set forth.

V. D. ANDERSON.

Witnesses:

ERASTUS PALMITER,

W. G. HAMILTON.