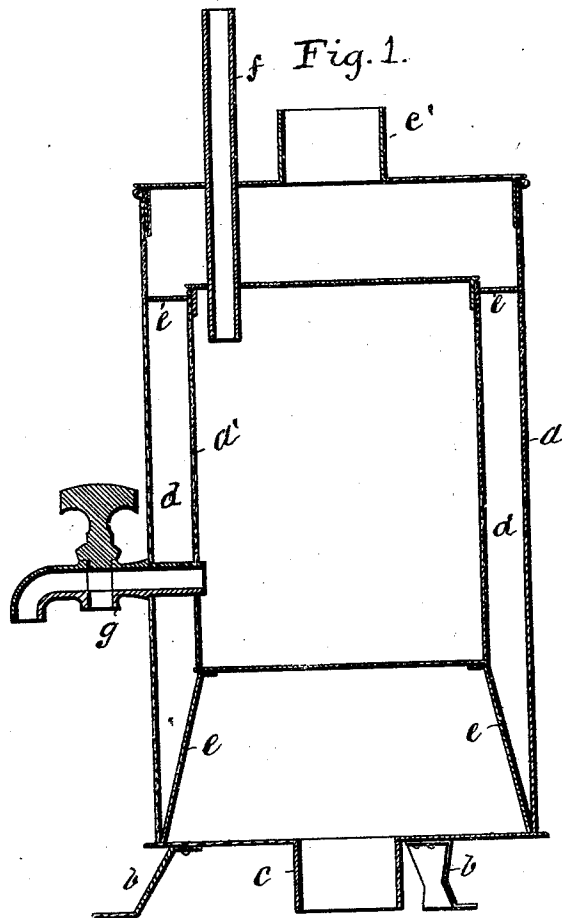


N. A. MOORE.

SMOKE-DRUM AND WATER-HEATER.

No. 170,884.

Patented Dec. 7, 1875.



Witnesses:

F. D. Humphrey
J. W. Bliss

Inventor

Nelson A. Moore

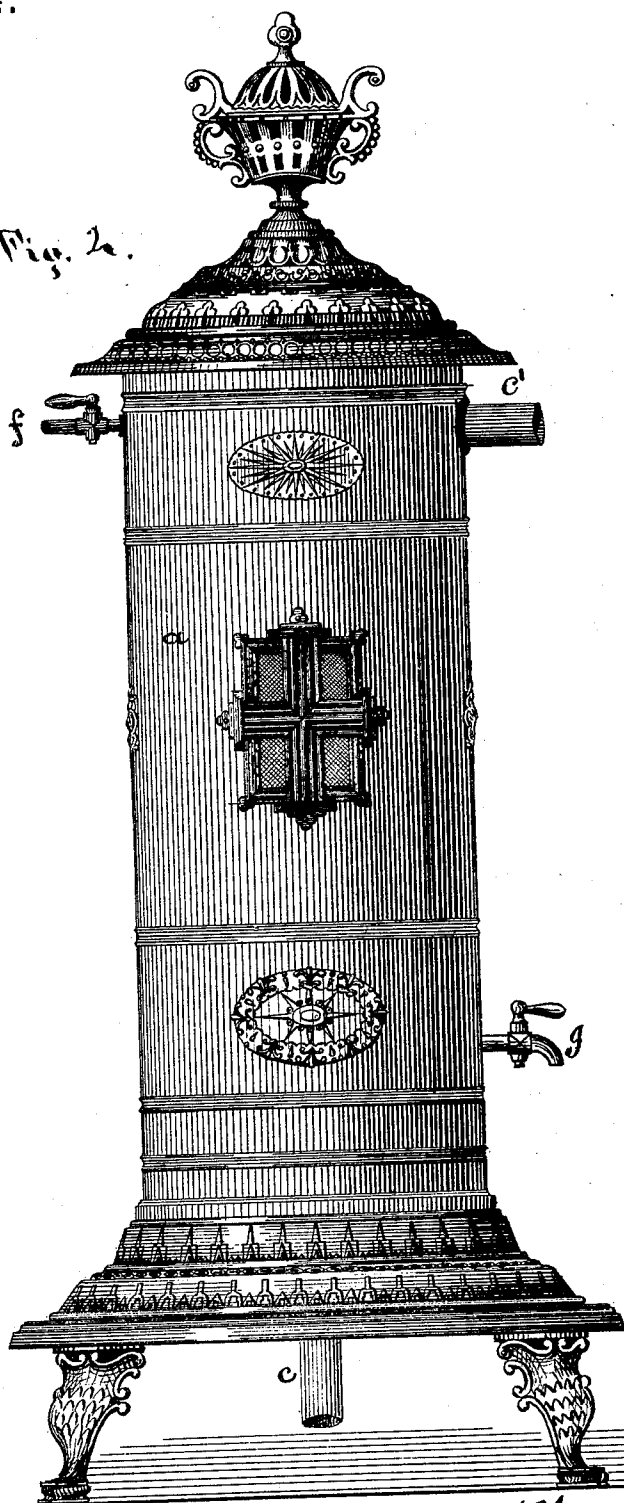
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Fig. 2.



Attest:

S. D. Wilder—
At. C. Wilder.

Nelson A. Moore
By Jeremy W. Bliff

UNITED STATES PATENT OFFICE.

NELSON A. MOORE, OF KENSINGTON, CONNECTICUT.

IMPROVEMENT IN SMOKE-DRUMS AND WATER-HEATERS.

Specification forming part of Letters Patent No. **170,884**, dated December 7, 1875; application filed April 14, 1874.

To all whom it may concern:

Be it known that I, NELSON A. MOORE, of Kensington, county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Smoke-Drum and Water-Heater; and to enable others skilled in the art to make and use the same, I will proceed to describe it, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this improvement consists of a smoke or escape-heat-radiating drum with a close water-boiler arranged and supported therein, forming an area-space around its entire surface, to receive and allow the escaping products of combustion (as they pass or flow through the space) to diffuse and expand upon the surface of the boiler, and the boiler and drum combine in radiating a greater amount of heat into the apartment in which it is located.

In the accompanying drawings is shown, in Figure 1, a central vertical section of a device illustrating the present invention. Fig. 2 is an elevation of this invention as in operation independent from a stove.

a is a heat-radiating drum, supported by legs *b*; and *c*, a collar to receive the end of the stove-pipe which conducts the escaping products of combustion from a stove into the drum; and *c'*, a collar to receive the end of an eduction-pipe, which conducts the expended products away after the heat from the escaping products of combustion has been expended upon the boiler *a'*, which is arranged, and supported by brackets *e*, inside of the drum *a*. *f* is an induction water-pipe, for conducting water, under pressure, through the wall of the drum *a* into the boiler *a'*, so that water may

be drawn from the boiler through the faucet *g* without diminishing the supply of water in the boiler.

By this improvement I am enabled to secure the full expansion of the heat upon the outer surface of the boiler and heater, and thus radiate a steady heat into the apartment, and have the convenience at all times of warm water, and a more cleanly and healthy atmosphere.

I purpose, in making and operating my said invention, to use any ordinary or convenient form of drum or dumb stove; but I make no claim to any particular external shape, configuration, or design for same, nor to the external shape, design, or configuration now shown in Fig. 2 of the accompanying sheet of drawing.

What I claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, the independent smoke-drum and water-heater herein described, capable of attachment and use in connection with any ordinary stove or heater, and consisting of the upright stove-like body *a*, having pipe-thimbles *c* and *c'*, respectively, at bottom and top, and the internal water-heating chamber *a'* centrally fixed therein by stays or supports *e e*, the entire body of said chamber directly in the line of the escaping products of combustion, so as to be wholly surrounded thereby, and having an induction-pipe, *f*, at top, and an eduction-pipe, *g*, with suitable cut-off, at bottom, all substantially as and for the purposes set forth.

NELSON A. MOORE. [L. S.]

Witnesses:

F. H. HUMPHREY,
JEREMY W. BLISS.