E. D. ROBERTS.

Stovepipe Drum.

No. 100,557. Patented March 8, 1870.

Fig 1.

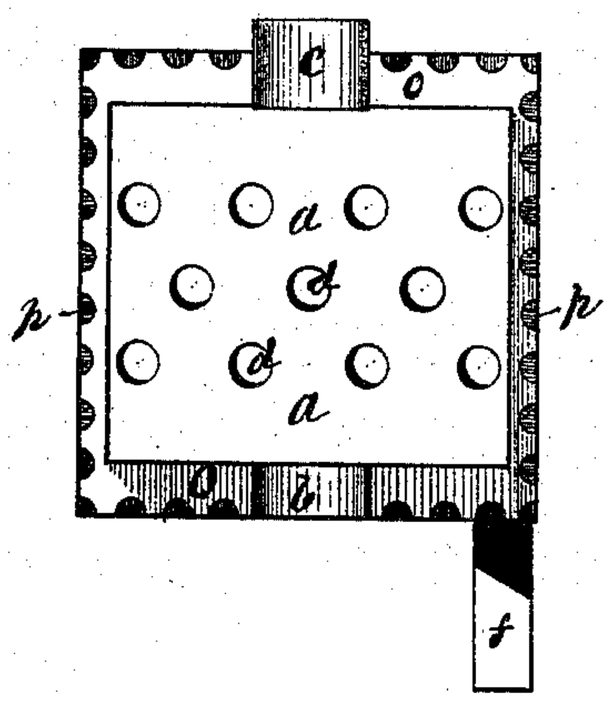
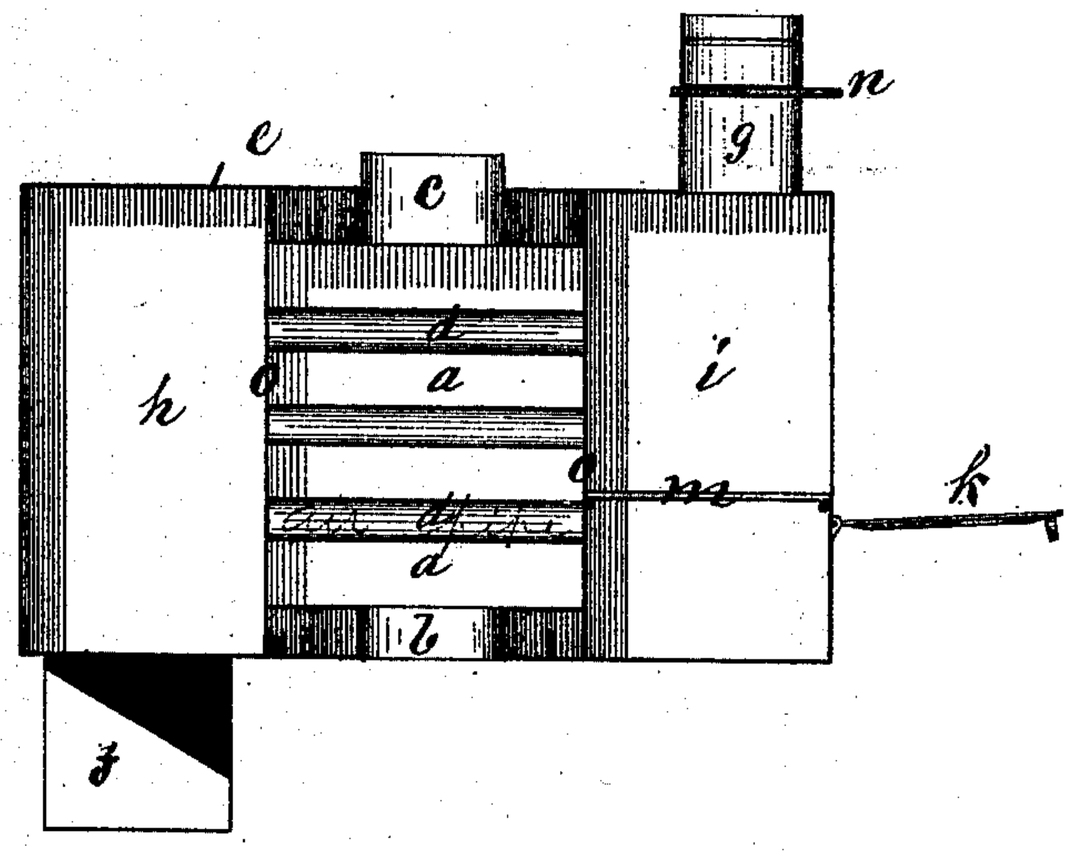


Fig 2.



Witnesses.

Jerry W Bays

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United States Patent Office.

EDMUND D. ROBERTS, OF HARTFORD, CONNECTICUT.

Letters Patent No. 100,557, *dated March* 8, 1870.

STOVE-PIPE DRUM.

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, EDMUND D. ROBERTS, of the city and county of Hartford, and State of Connecticut, have invented a certain new and useful Improvement in Stove-Attachment for Radiating Heat; and to enable others skilled in the art to make and use the same, I will proceed to describe its construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this invention consists of a smoke and heat-chamber, having fixed air-circulating tubes arranged therein, and smoke and heat-conducting pipes leading into and from said chamber, which are placed intermediate between the stove exit-smoke flange and the end of the common smoke-conducting pipe, said smoke and heat-chamber being inclosed in an air-box having an air induction, and hot-air eduction conducting-pipe to and from the same.

It also consists of a hot-air chamber or oven, arranged in combination therewith.

The object of this invention is to unite air with heat, which commonly passes off in the smoke-pipe, and thereby render it available for heating adjoining apartments, &c.

In the accompanying drawings—

Figures 1 and 2 are vertical section views.

a is the smoke and heat-chamber, having a pipe or flange, *b*, designed to fit onto the stove smoke-exit pipe; also a pipe, *c*, extending upward out of said chamber, to connect with the common smoke-pipe.

This chamber *a* is provided with vertical or horizontal air-circulating tubes *d*, (in number more or less, as desirable.)

This chamber is inclosed within an air-box, *e*, which is provided with cold-air induction-pipe *f*, and heated-air eduction-pipe *g*.

h is a cold-air chamber, which cold air passes through the tubes *d* into the chamber *i*, and in its passage from the chamber *h* takes up the heat from the pipes or tubes *d*, thence through the conducting-pipes *g* into an adjoining apartment.

k is a door to the oven or hot-air chamber *i*.

m is a shelf or grating arranged in the oven or hot-air chamber, upon which to place any article desirable.

n is a damper, or valve arranged in the eduction-pipe or conducting-tube *g*, so that when it is closed the entire heat may be concentrated in the chamber *i*, and by opening said valve the heat may be conducted into an adjoining apartment.

The end plates *o* of the chamber *a* are provided with circular openings *p*, to allow the air to circulate through and around outside of the chamber *a*.

It will be seen that by arranging the tubes *d* in a vertical position, and so as to connect with the stove smoke-exit and its exit-pipe, the heat and smoke may pass through said tubes, and the air circulate around them, instead of as before set forth.

By this improvement the otherwise waste heat will be expended and absorbed by the air circulating in the chamber, and around the heating-tubes into the chamber *i*, where it can be used to great advantage for various purposes, or by opening the damper *n* the heated air may be conducted into other desirable apartments.

I believe I have thus shown the nature, construction, and advantage of this invention, so as to enable others skilled in the art to make and use the same therefrom.

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

The smoke and heat-chamber *a*, with its tubes *d* arranged within a cold and hot-air chamber *h* and *i*, with the tubes *f* and *g*, substantially as set forth.

Also, in combination with the above, a hot-air chamber or oven *i*, substantially as set forth.

EDMUND D. ROBERTS.

Witnesses:

E. M. BLISS,

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