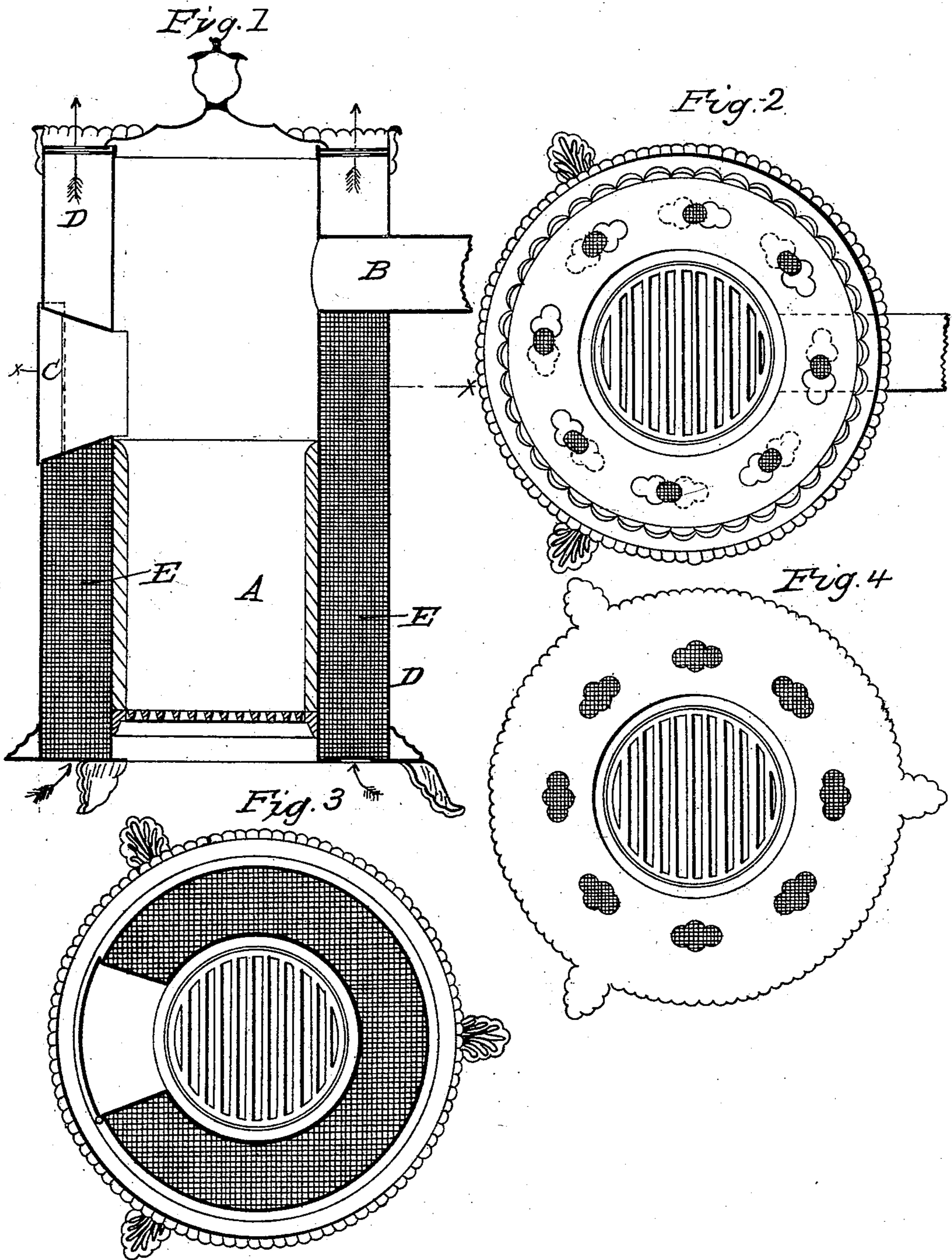


W. MOOTRY.
Heating Stove.

No. 13,728.

Patented Oct. 30, 1855.



UNITED STATES PATENT OFFICE.

WM. MOOTRY, OF NEW YORK, N. Y.

STOVE.

Specification of Letters Patent No. 13,728, dated October 30, 1855.

To all whom it may concern:

Be it known that I, WM. MOOTRY, residing at New York, N. Y., have invented an Improvement in Furnaces, Stoves, and other Heating and Cooking Apparatus, reference being had to the accompanying drawings, making part of this specification, of which the following is a description.

My improvement consists in the application and employment of wire work and other regular or cellular metallic interstices in combination with stoves, furnaces and other like apparatus, or with any heated surface operating in the manner and for the uses and purposes hereinafter more fully set forth, the whole tending to lessen the consumption of fuel and to develop in a better manner its calorific resources.

Figure 1, represents a vertical section of a stove or furnace with the improvement attached. Fig. 2, is a view of the top of the stove, the cover being off showing the grating at the bottom. Fig. 3, is a horizontal section cut through at the line *x x* Fig. 1. Fig. 4 is a view of the bottom of the stove, but not showing any ash pan the same not being essential in this description.

A, Fig. 1 represents the interior or fire chamber of a common cylinder stove or furnace lined with fire brick and otherwise constructed in the usual manner.

B, Fig. 1, is the pipe for the escape of smoke.

C, Fig. 1, is the door at the side which opens to the fire-chamber in the usual manner.

D, D, represents an external surrounding cylinder open at the top and bottom placed at any convenient distance from the inner cylinder or fire chamber.

E, represents wire work filling the space thus formed between the two cylinders or so much thereof as may be contiguous to the fire.

The wire work being heated by contiguity to the fire, currents of air pass in at the bottom as indicated by the lower arrows Fig. 1, thence through the meshes where they become heated and out at the open top as indicated by the upper arrows.

Fig. 4 represents the holes in the bottom of the wire chamber through which the air to be heated is allowed to pass.

Fig. 2, represents the holes in the top through which the heated currents pass from the wire chamber into the room or elsewhere if desired. The dotted lines represent an adjustable register or shut off which may be affixed either to the bottom or top; holes may also be placed in the sides near the bottom (not shown in the drawing) for the admission, and like holes at the side near the top for the emission of air current.

If applied to grates the sides and back should be made hollow to receive the wire work packing and suitable apertures made for the ingress and egress of air. The same may be applied to any heated surface and is equally applicable to hot water or steam apparatus and heated surfaces generally for heating and other purposes where warm air is required. If the wire work is galvanized plated, or otherwise covered by some unoxidable metal the air currents will not be vitiated or rendered unwholesome.

The advantages contemplated by this improvement, are, among other things to produce and furnish as large amount of heated surface in a small amount of space accessible to currents of air. I do not claim its application to any particular form, design or construction of heating apparatus inasmuch as the same is applicable to all; and many modifications of detail of arrangement might easily be suggested without essentially affecting the principle or character of the invention. I expressly disclaim any metallic packing that does not contemplate regular cellular tissues. I especially disclaim the use of spiral metallic scraps.

What I do claim as my own invention and desire to secure by Letters Patent is—

The application and employment of wire work or other regular metallic cellular interstices in combination with stoves, furnaces and other heating and cooking apparatus or with heated surfaces generally when used in the manner substantially and for the uses and purposes hereinbefore mentioned.

WM. MOOTRY.

In presence of—

CHARLES LEARY,
THOS. PALMER.