

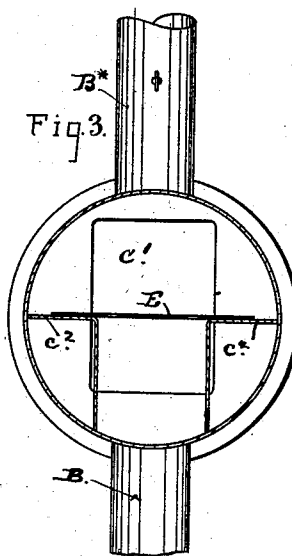
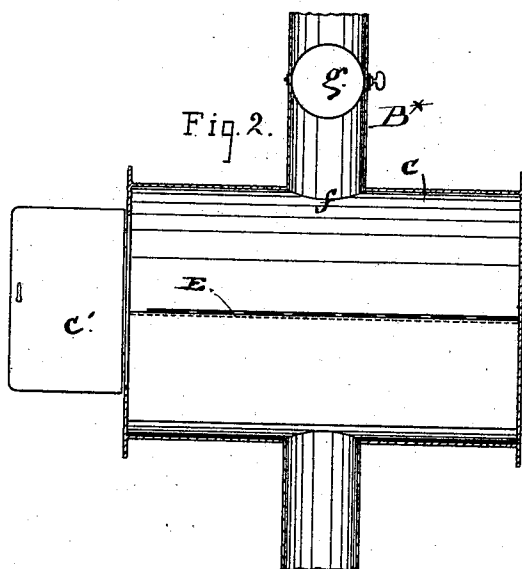
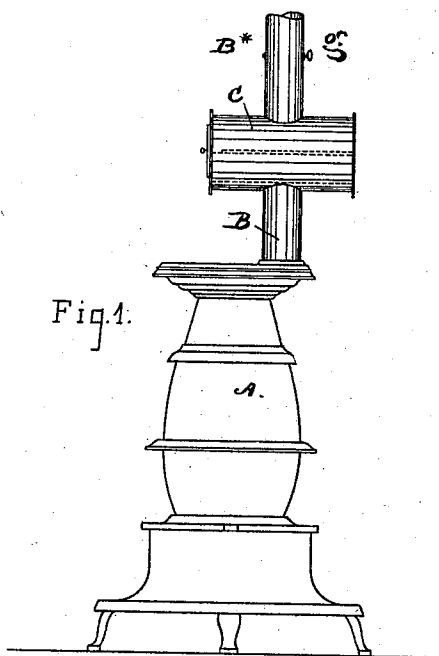
(No Model.)

J. P. LYDON.

HEATING DRUM.

No. 322,549.

Patented July 21, 1885.



WITNESSES:

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JAMES P. LYDON, OF MARYSVILLE, CALIFORNIA.

HEATING-DRUM.

SPECIFICATION forming part of Letters Patent No. 322,549, dated July 21, 1885.

Application filed June 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. LYDON, a citizen of the United States, residing in Marysville, in the county of Yuba and State of California, have invented an Improved Heating-Drum; and I do hereby declare that the following is a full, clear, and exact description of the said invention, and of the manner in which I proceed to construct, apply, and use the same, the accompanying drawings being referred to by figures and letters.

My invention has for its object to effect more complete combustion of the unconsumed or partially-consumed solids and gases from the fire of a stove, and to thereby obtain from that portion of fuel matter which generally escapes and runs to waste up the smoke-pipe a useful amount of heat.

To such end and purpose it consists in carrying the smoke, gases, and partially-consumed matter as it leaves the stove into and through a drum or chamber containing within it a fire, the inlet for the smoke, gases, &c., being located below, and a draft or escape being carried from above this fire-surface to the chimney or other source of escape. As all the smoke, gases, and particles carried off from the stove-fire can find an outlet only through this second fire, their complete combustion is effected and the heat therefrom utilized in heating the apartment.

I am aware that drums have been formed with supports in them for sustaining articles; but I am not aware that any have heretofore been adapted and designed for containing a supplemental fire for consuming the partially-consumed products of combustion from the stove proper.

I am also aware that stoves and furnaces have been formed with a supplemental heating or combustion chamber above the ordinary fire-pit, in which the partially-consumed gases and products of combustion may be re-burned or more fully consumed, and commingled with outside atmosphere received from a source of supply separate from that of the main fire.

In the drawings referred to, Figure 1 represents my device applied to a heating-stove of ordinary construction. Fig. 2 is a side ele-

vation in section, and Fig. 3 a cross-section of the same figure. Those two views are on a larger scale.

A represents the stove; B, the smoke-pipe, and C my smoke-consuming and heating attachment. It is constructed, preferably, of sheet metal, and of cylindrical form, with a door, *c'*, in one end. The smoke-pipe B from the stove is carried into it at the bottom, and from an outlet, *f*, in the top a pipe, B*, connects it with a chimney or other suitable outlet. The interior of this chamber is divided by a perforated partition, E, forming a fire-supporting surface. The plate is removable, and is supported on ledges or shelves *c'' c''*, projecting from the sides of the cylindrical body. These supports I form of angle-pieces, which are readily inserted from one end and secured in place by rivets or any other suitable means.

Access to the interior is had through the doorway for introducing the fire and cleaning out the chamber, for which latter purpose the perforated plate is made to lift up from its supports, and, if desired, can be made to be taken out altogether.

If desired, a damper, as *g*, may be placed in the pipe B*, as shown.

The manner of using this attachment is as follows: It is interposed in the length of stove-pipe at any desirable point between the stove and the chimney, and the plate being covered with live coals or a quantity of thoroughly-ignited fuel, the door is closed. The products from the stove-fire then passing from the stove are drawn through this secondary fire-surface by the draft, the degree of which is regulated by means of a damper, *g*, in the outlet-pipe above the chamber. The additional heat thus developed in this chamber is thrown off to influence the temperature of the surrounding air of the apartment.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described attachment to stoves, consisting of the close chamber C, having a grate or perforated fire-supporting surface, which divides the interior into two parts, one of which is connected with the draft and smoke-passages of a stove, and the other of

which communicates with a chimney or suitable draft-outlet, and is controlled by a damper.

2. The combination, with the smoke-pipe of a stove, of a drum or chamber having a perforated fire-supporting surface, D, a door, c',
5 an outlet on one side of the fire-surface communicating with the smoke and draft passages

of the stove, and the outlet on the other side of the fire-surface, from which the smoke-pipe leads to the chimney or other outlet.

JAMES P. LYDON. [L. s.]

Witnesses:

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