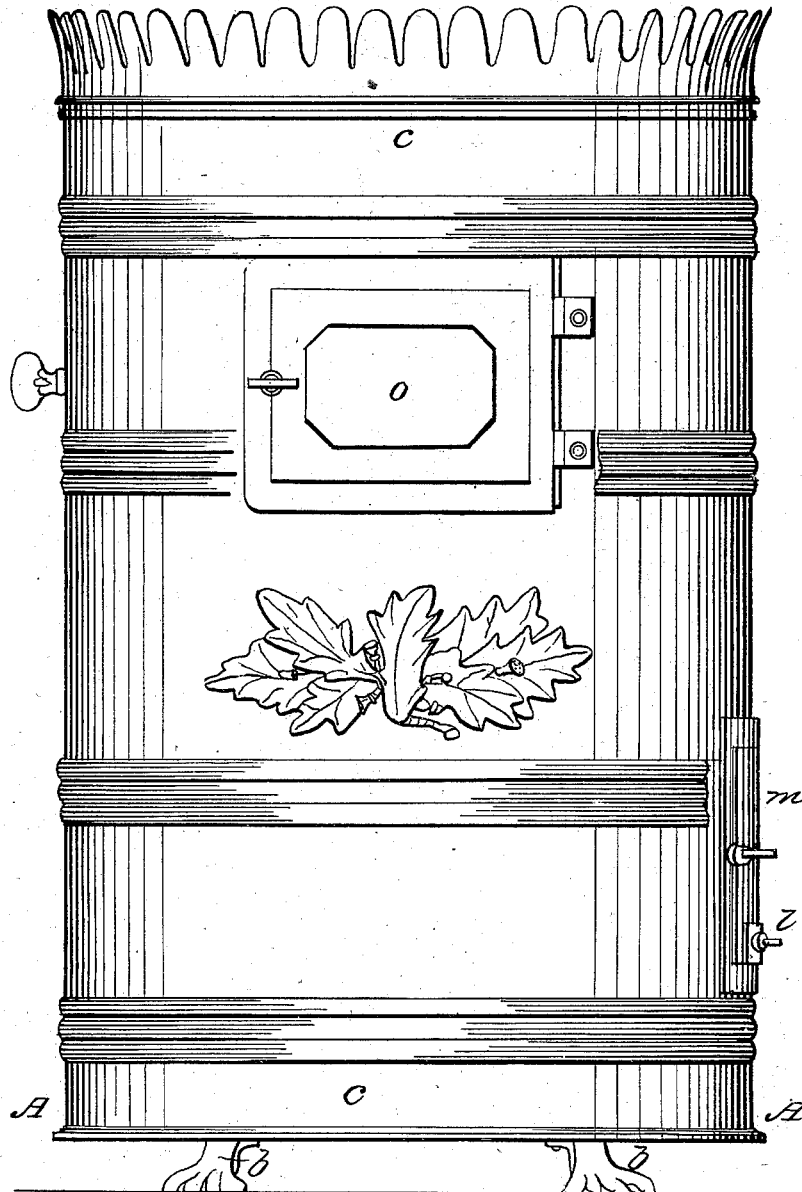


L. BAILEY.
Heating Stove.

No. 3,508.

Patented March 26, 1844.

Fig. 1,

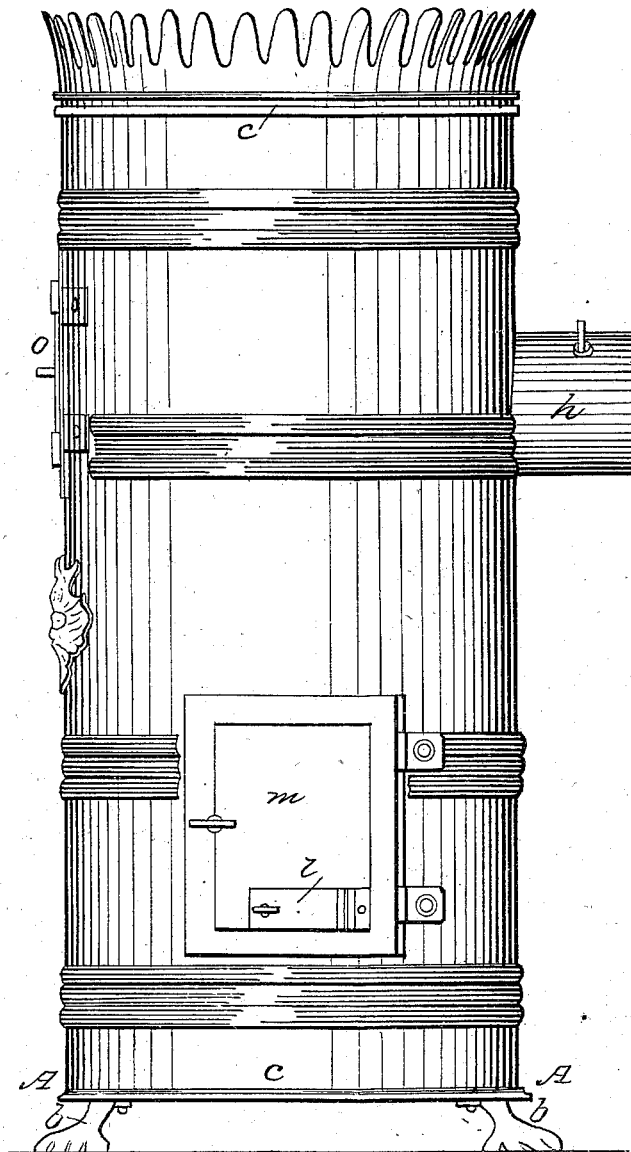


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Fig. 2,



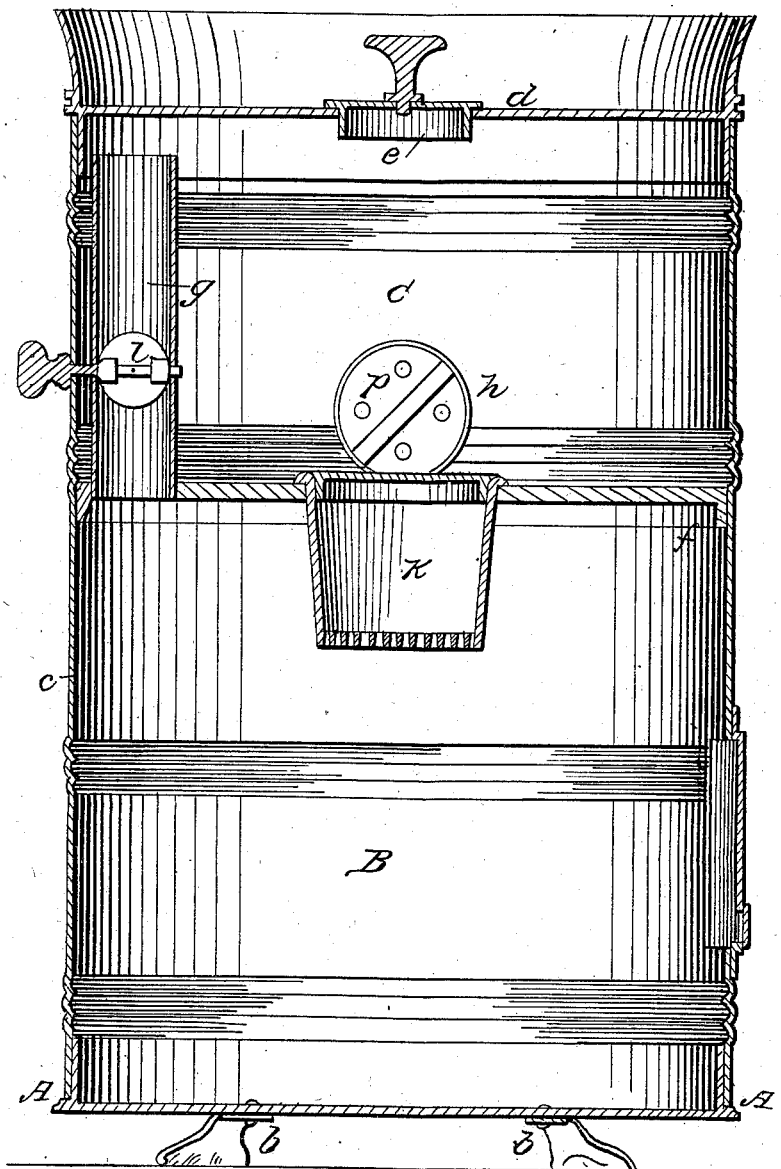
L. BAILEY,
Heating Stove.

4 Sheets—Sheet 3.

No. 3,508

Patented March 26, 1844.

Fig. 3,

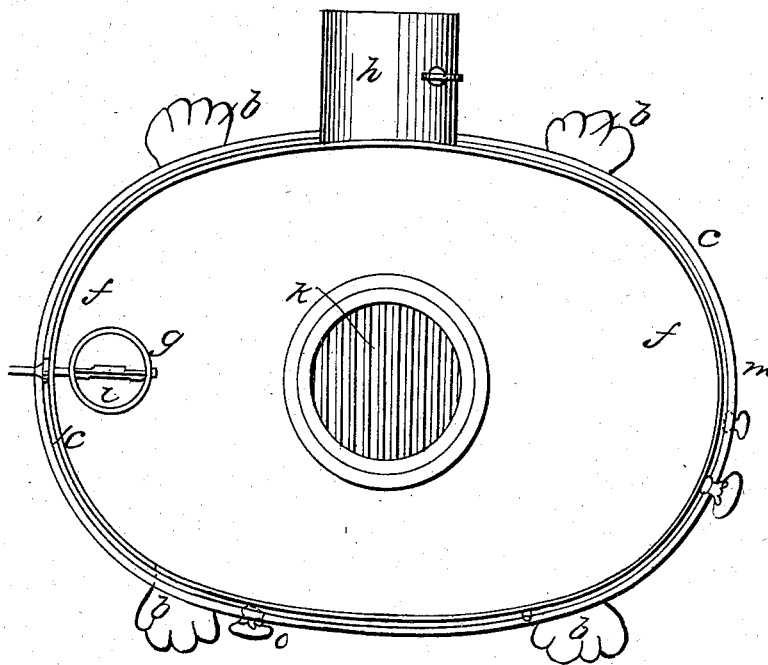


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Heating Stove.

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Patented March 26, 1844.

Fig. 4.



UNITED STATES PATENT OFFICE.

LOAMMI BAILEY, OF BOSTON, MASSACHUSETTS.

STOVE.

Specification of Letters Patent No. 3,508, dated March 26, 1844.

To all whom it may concern:

Be it known that I, LOAMMI BAILEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and
5 useful Improvement in Stoves for Heating and Culinary Purposes, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification
10 of the same, wherein I have set forth the nature and principles of my said improvement by which my invention may be distinguished from others of a similar class, together with such parts or combinations as
15 I claim and desire to have secured to me by Letters Patent.

My improvement consists in such an internal arrangement of the stove, as to provide two fire-places or fire chambers, one
20 above the other, either or both of which may be used at pleasure; the lower one being for wood and the upper one for coal. The advantages of such an arrangement will be apparent, when it is remembered that in the
25 early part of the cold season there is necessity for a little fire only, and that at such times there is a strong and general disinclination to use coal. It should also be remarked, that stoves which are designed
30 for the use of coal, and in which wood may be used, in all cases require so much of the latter kind of fuel to make them work satisfactorily, that their use becomes very expensive, and they are totally inapplicable
35 to the purposes to which my improved arrangement can be adapted.

A stove with my improvement is represented in the figures of the accompanying plate of drawings.

40 Figure 1, is a front elevation. Fig. 2, is a side elevation. Fig. 3 is a longitudinal vertical section taken through the center of the stove parallel to the front, and Fig. 4, is a top view with the top plate removed for
45 the purpose of showing the upper fire-chamber.

A, A, Figs. 1, 2, 3, is the bottom plate, to which the legs *b, b*, are attached, and over the vertical rim of which the cylindroidal casing *c c* shuts or fits as shown in Fig. 3. This
50 casing incloses both fire-chambers of the stove, and extends the whole height of the same, having a cover or top plate *d* Fig. 3, fitted into it in the usual way. A safety
55 valve *e* is arranged in this top plate *d* as

shown in Fig. 3, and the space into which it fits, may be used for the insertion of a boiler or kettle if made sufficiently large.

At a little more than midway of the height of the stove, a horizontal elliptical
60 cast iron plate or partition *f f*, Figs. 3 and 4 is fitted air-tight by cement or otherwise to the inside of the casing *c c*, and near the center of this plate, a basket or cylindrical grate *h* is placed or set, and projects
65 most of its length below the plate *f f*. The plate *f f* it will be seen divides the space inclosed by the cylindroidal casing *c c*, into two apartments B, C, as shown in Fig. 3. The lower apartment as before suggested
70 is for wood and is used in the same way as the ordinary sheet-iron stove. A smoke pipe *g*, conducts from this chamber, through the plate *f f*, into the upper chamber C, and the smoke, &c., coming from the said cham-
75 ber B, impinges upon or comes in contact with the top plate *d* of the stove, to which it imparts heat, and passes out through the discharging flue *h* Figs. 3 and 4 formed just
80 above the top of the plate *f f*. A valve *i* is arranged in the ordinary way in the smoke pipe *g*, which should be closed when the lower apartment is not in use.

The basket or cylindrical grate *h*, is for the use of hard coal, and the smoke and
85 other products of combustion from the same pass out directly through the discharging flue *h*, which flue also has a turning valve, *p*, in which small circular holes are made as
90 shown in Fig. 3, to allow the gas, &c., to escape when the valve is closed for purposes of slow combustion.

The draft to the fuel in either or both fire chambers comes through a space or
95 small door *l* in the main feeding door *m* of the lower chamber B, arranged on the side of the stove as shown in Fig. 2, and when both fires are lighted, it will be seen that the combustion of the coal fire will be
100 greatly assisted by the heat from the wood. When the coal fire is not used the basket grate *h* may be closed up by the cover *n*, which converts the chamber C into an oven
105 it being only necessary to have an elbow funnel to insert into the smoke-pipe *g* to convey the products of combustion directly to the discharging flue and thereby exclude
smoke, &c., from the oven thus formed.

The fuel for the grate is supplied through the front door O, which is directly opposite
110

the discharging flue, and when a steak is broiling, or any cooking is going on over the grate *h*, (which can be done with great facility), the steam, effluvia, &c., will be conveyed out through said flue without coming into the room. Roasting can also be done by the coal fire, by suspending a proper vessel or receptacle for the meat in front of the stove when the door *O* is turned back or unhinged.

Both of the doors *m o*, should be made of cast iron, and fitted to frames made of the same material, as is usual in stoves of this description.

Having thus set forth and described my new improvement in stoves I shall now proceed to specify such part as I consider original, and claim to be my invention.

I claim—

The combination with the partition fitted air tight between the two fire chambers as hereinabove described or the forming in said partition of a smoke pipe or flue communicating between the two fire chambers, the whole being arranged and operating substantially as hereinbefore specified, for the purposes set forth.

In testimony that the foregoing is a true description of my said invention and improvement I have hereto set my signature this twenty first day of December in the year eighteen hundred and forty-three.

LOAMMI BAILEY,

Witnesses:

EZRA LINCOLN, JR.,
T. H. BORDEN,