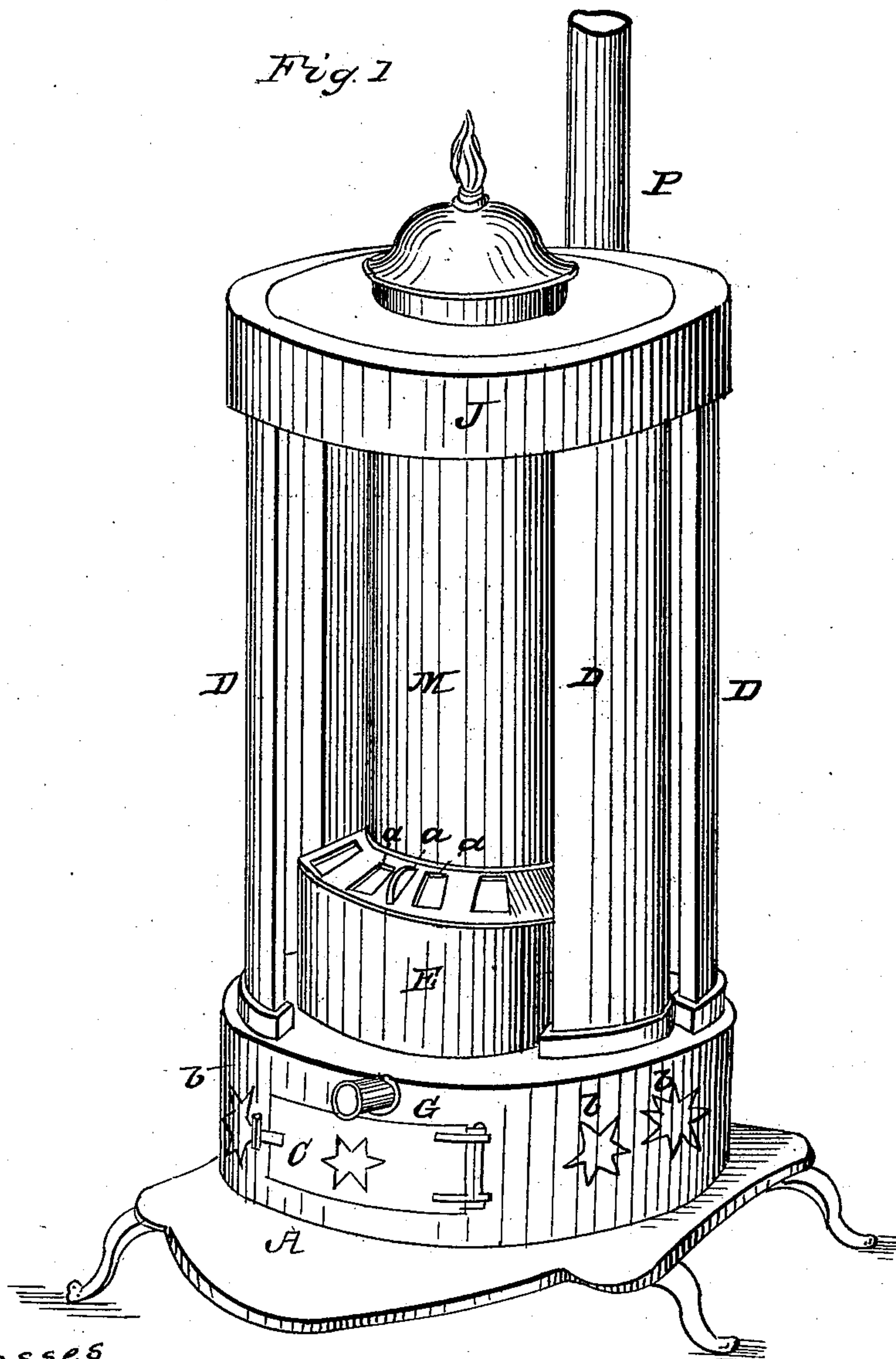


J. EASTERLY.  
Magazine Stove.

3 Sheets—Sheet 1.

No. 12,382.

Patented Feb. 13, 1855.



Witnesses  
*Wm. Parke Sewell*  
*W. Miller*

Inventor  
*James Easterly*

J. EASTERLY.

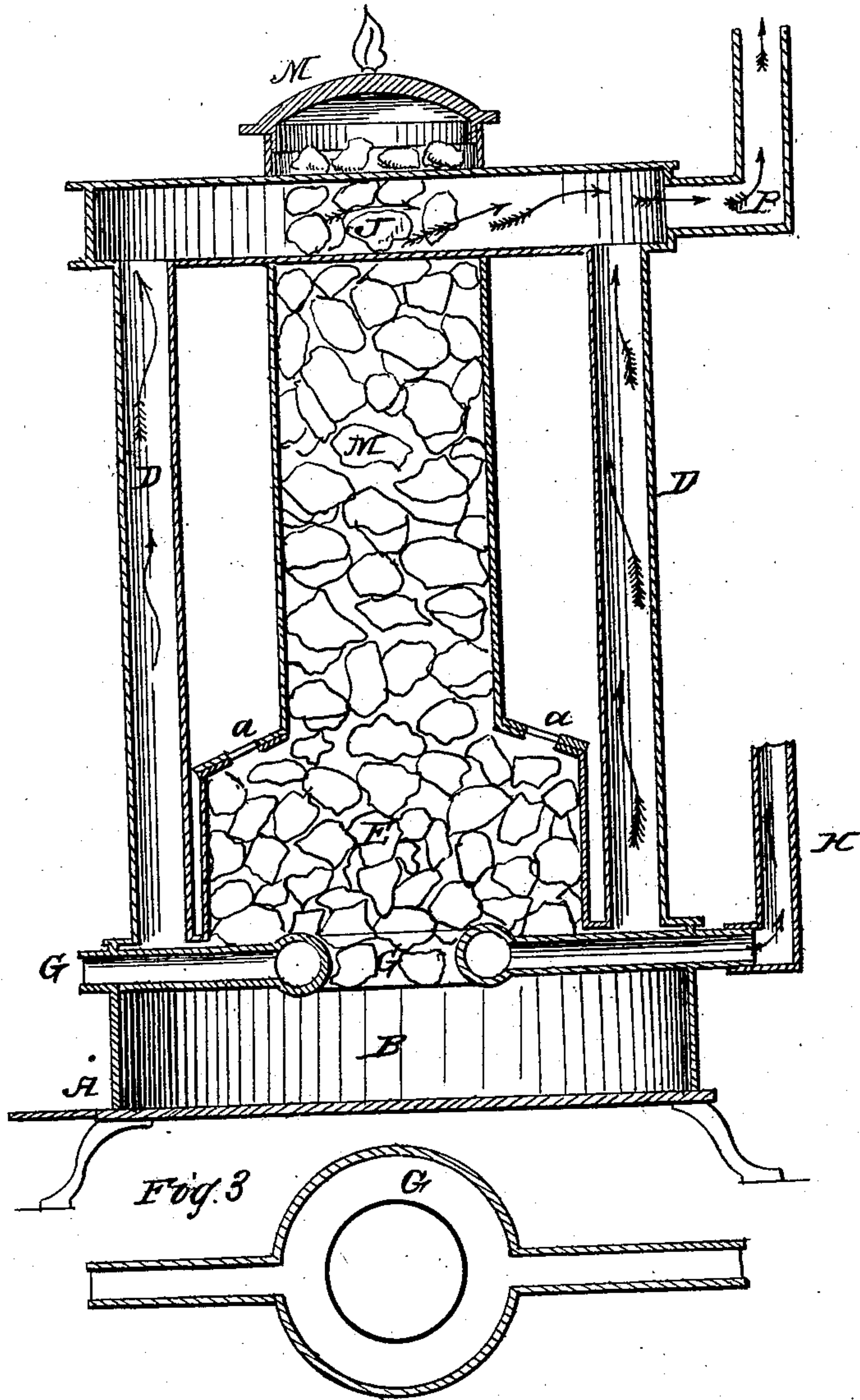
3 Sheets—Sheet 2.

Magazine Stove.

No. 12,382.

Patented Feb. 13, 1855.

Fig. 2



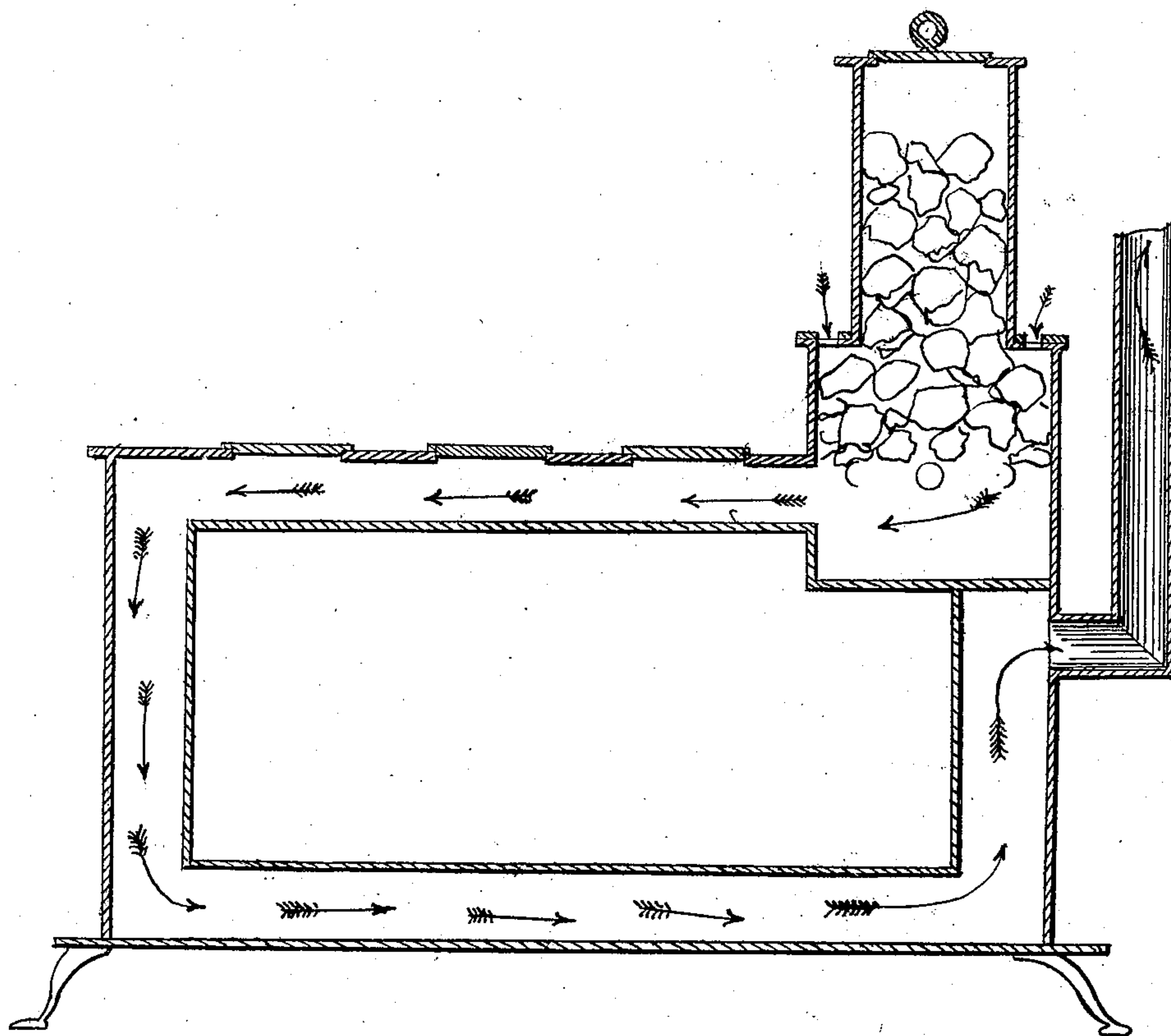
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J. EASTERLY.  
Magazine Stove.

No. 12,382.

Patented Feb. 13, 1855.



Witnesses  
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Inventor  
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# UNITED STATES PATENT OFFICE.

JAMES EASTERLY, OF ALBANY, NEW YORK.

## MAGAZINE SMOKE-CONSUMING STOVE.

Specification forming part of Letters Patent No. 12,382, dated February 13, 1855; Reissued June 30, 1868, Nos. 3,009 and 3,010.

*To all whom it may concern:*

Be it known that I, JAMES EASTERLY, of the city of Albany, State of New York, have invented a new and improved method of constructing stoves for the burning of every kind of fuel, but chiefly of bituminous coal, which I call "Easterly's Magazine Smoke-Consuming Stove," the design of which is to prepare the fuel intended to supply the waste of that which is consuming by heating the same, and thereby distilling or volatilizing and consuming its bituminous and fuliginous matter and at the same time regulating the amount of burning fuel to certain quantities as the same may be required for habitual use.

I declare the following specification and drawings forming part of the same to be a full and perfect description of the stove and its parts.

Figure 1 represents a perspective view of the parlor or hall stove. Fig. 2 represents a vertical section of the stove.

Similar letters in the drawings refer to the same parts of the apparatus.

A represents the hearthplate on which stands the ashpit B having in its upper region the grate G, above which is the fire-chamber E which is a cylinder of sufficient diameter and height to contain when fitted enough burning fuel for customary use. Above this stands the magazine M which is a cylinder less in diameter than the fire-chamber, and is as deep as may be found convenient and desirable for containing a proper supply of coal, without renewing the same. This magazine is closed tightly at top so that no draft of air can enter it.

The fire chamber is less in diameter than the ashpit, and from the top plate of the ash-pit which projects beyond the fire-chamber, flues D, D, rise upward communicating above and opening into an annular chamber J surrounding the magazine, and from which chamber a flue or pipe P, carries off the heated air and gases into a chimney.

The ring which forms that part of the top of the fire chamber, lying between its outer walls, and those of the magazine is pierced with slots for the admission of air, and is covered with another and similar metal ring lying loose upon it, also pierced with corresponding slots *a a*, so that when it is turned round over the other it may operate in the usual way as a register for the management of the draught of air to the fire.

The ash pit is closed tight with a door, G, and may be perforated with openings in the metal (of a star form in the drawings) closed tight with talc-glazing. Through these openings or windows *b, b*, the condition of the fire may be observed, which when burning properly will show a clear flame free from smoke.

The operation of the stove is simply this: The fire being kindled in the fire chamber E the draft of air enters at *a a* and passes downward through the grate G into the ash-pit, thence up the flues D into the chamber J and through the pipe P into the chimney. The magazine M being filled with coal and the top closed tight, the lower portion of the fuel presses down upon the burning mass in the fire chamber, and becomes warmed by contact with it. This heats the coal and distills from it the sulphur, bitumen &c., which with their gases, pass down through the fire, and become consumed leaving the coal converted into coke, to supply the waste of the burnt fuel. The draft of air being admitted at *a a* the coal stored above its line, does not ignite but is simply warmed and prepared for ignition as it approaches the fire chamber.

It will be understood, from the character of this apparatus and nature of its operation, that its form and arrangements may be varied considerably. I do not therefore limit myself to the forms represented on the drawings, but claim the right to arrange the apparatus in any way that may substantially and appropriately carry out the principles of construction and use above set forth. An illustration of this is meant to be given in Plate 2, Fig. 4, which is a sectional sketch of a cooking stove as arranged to carry out our principles of construction.

I do not claim the use of a fuel magazine nor of a downward draft for the fire, neither being novel arrangements in stoves. But I claim—

The constructing a stove as hereinbefore described, with openings for the admission of air to the burning fuel, at some point or points above the grate, including between said points and the grate sufficient fuel for ignition at any one time.

JAMES EASTERLY.

Witnesses:

RICHD. VARECK DE WITT,  
W. C. MILLER.