

E. A. JACKSON.
Gas or Oil Stove.

No. 204,490.

Patented June 4, 1878.

Fig. 1.

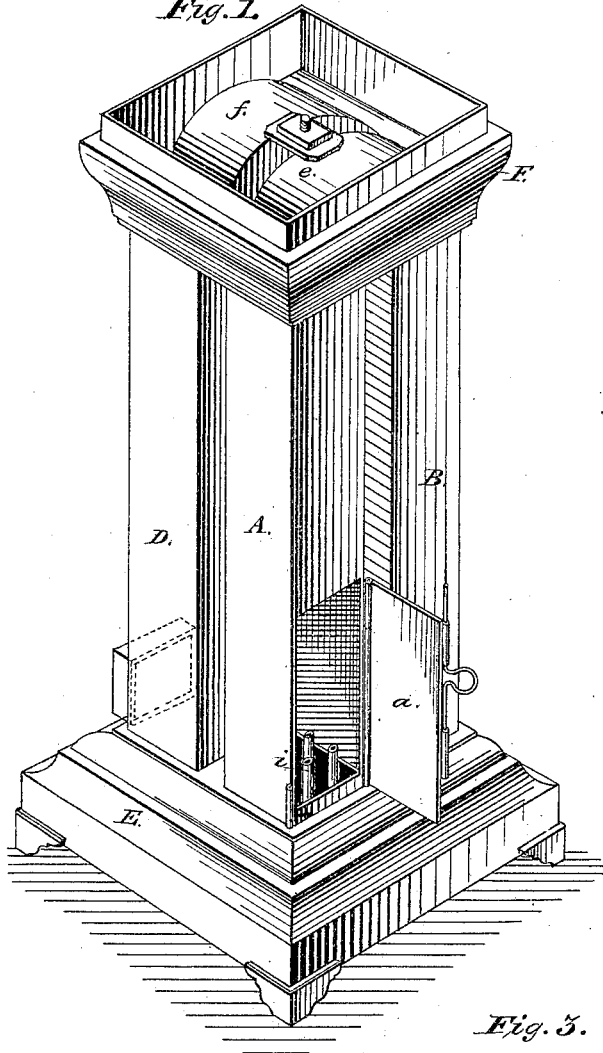


Fig. 2.

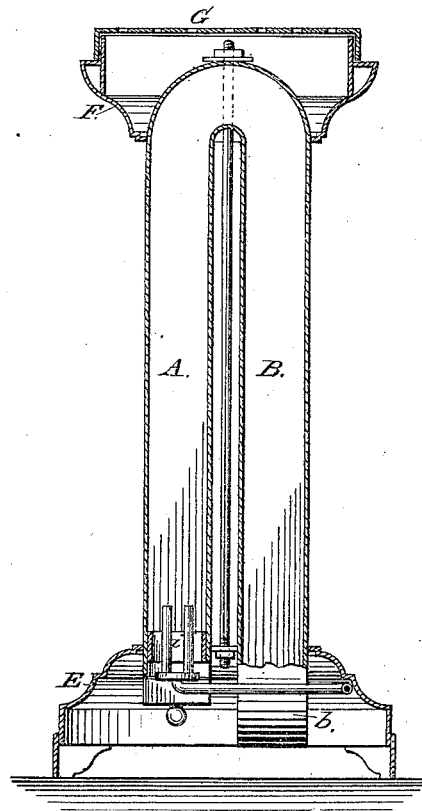
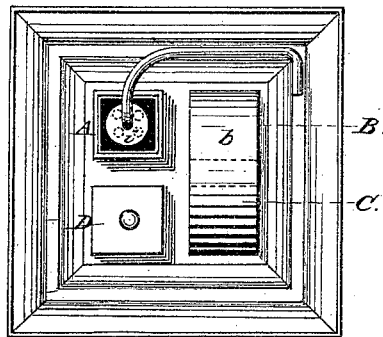


Fig. 3.



Witnesses:

Wm M. Jackson.
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IMPROVEMENT IN GAS OR OIL STOVES.

Specification forming part of Letters Patent No. **204,490**, dated June 4, 1878; application filed May 4, 1878.

To all whom it may concern:

Be it known that I, EDWIN A. JACKSON, of New York city, in the county and State of New York, have invented a new and useful Improvement in Gas and Oil Stoves, of which the following specification is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of my apparatus. Fig. 2 is a vertical cross-section of the same, and Fig. 3 a bottom view thereof.

Like letters indicate like parts in all the views.

My invention relates to gas and oil stoves, which are employed for general domestic and other purposes.

The object thereof is to furnish, in a compact form, an apparatus with a large heating-surface, and one which will at the same time afford the requisite ventilation, and carry off all deleterious gases, while the waste of fuel amounts substantially to nothing.

It consists in certain peculiarities in the construction of the parts of the device, as will be hereinafter more particularly described.

In the drawings, A, B, C, and D represent four vertical columns or flues for radiating heat. These flues are preferably made square, as shown; but they may be round, if desired, of from two and a half to four inches in diameter, according to the size of the stove or heating capacity needed. I prefer them square, for when thus constructed they present a larger area of heating-surface than a stove of equal size furnished with the rounded form. They are placed in position on the base-piece E, about one and a half inch apart, and are connected to elbows (having a free circulation) at the top and bottom, as illustrated.

The elbows at the top serve to support the cap F, which cap may be used to support vessels containing any matter sought to be kept warm, &c.

Column A is provided with a door, *a*, for access to the lamp or gas burners *i*, located at the base of said column. The bottom of this column is open, so as to allow a free access for air from the base of the apparatus. Elbow *b* connects columns B and C within the base E, and elbows *e* and *f* connect the four columns at their tops.

Column D is provided with an outlet at any

convenient point near the base for the discharge of the deleterious gases into a chimney attached thereto. This column is closed at its bottom by means of a removable cap.

The cap F may be furnished with a perforated top, G.

The effect of dividing the body or cylinder of the stove into columns or flues is to bring the heated currents into closer contact with the sides of the metallic surface, thereby heating the same more quickly and effectually.

The operation of the apparatus is plain from the foregoing description and the drawing. The lamp or burners at the bottom of column A being lighted, the heat therefrom rises to the top of said column, passes thence to column B, by the communicating elbow *e*, and descends the latter column, and passes into column C through elbow *b*, and thence ascends column C and passes to the last column of the series, D, through elbow *f*, and down said column D to the exit for the discharge of the deleterious gases near the base of said column.

By causing the heated currents to pass up to the top of the apparatus and down again to the base through the respective columns and elbows, the entire surface of the stove is more effectually heated, since the products of combustion are retained within the apparatus until all the heat is eliminated therefrom, the poisonous gases alone escaping into the chimney at the outlet near the base of column D.

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

1. In a gas or oil stove, the combination of the heat-radiating columns B, C, D, and A, the latter being provided with a door, *a*, the elbows *b*, *e*, and *f*, base-piece E, and lamp or burners *i*, substantially as and for the purposes specified.

2. The combination of the heat-generating columns A, B, C, and D, connecting-elbows *b*, *e*, and *f*, base-piece E, cap F, lamp or burners *i*, the said column A being provided with a door, *a*, substantially as and for the purposes set forth.

EDWIN A. JACKSON.

Witnesses:

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