D. PETREE.

Stove.

No. 2,506. Patented March 23, 1842.

Fig. B.

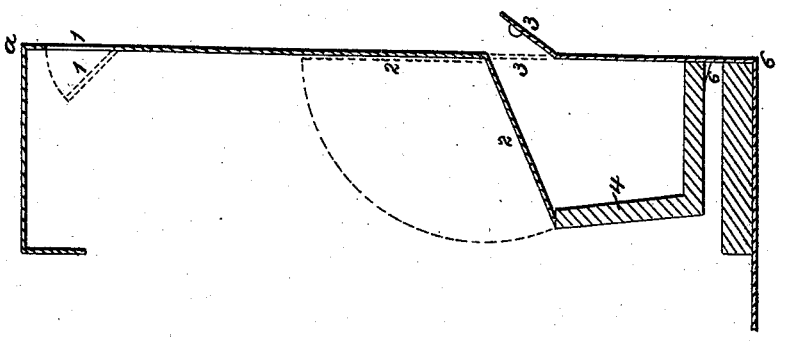
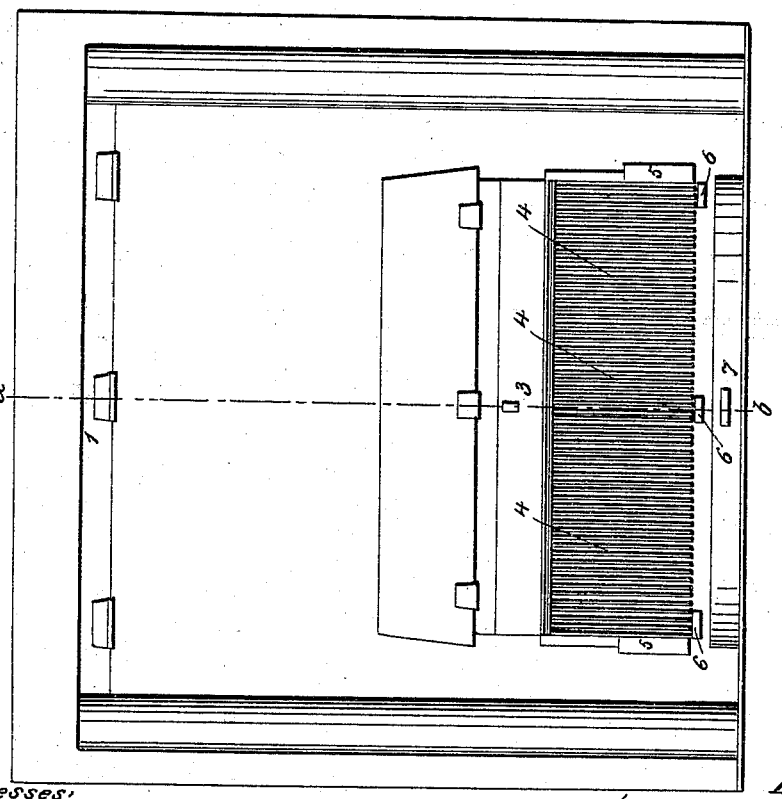


Fig. A.



Witnesses:
Elisha L. Capron
Josa Petree

Inventor.
David Petree.

UNITED STATES PATENT OFFICE.

DAVID PETREE, OF LITTLE FALLS, NEW YORK.

CONSTRUCTION OF OPEN STOVES OR FRANKLINS FOR BURNING COAL.

Specification of Letters Patent No. 2,506, dated March 23, 1842.

To all whom it may concern:

Be it known that I, DAVID PETREE, of the town of Little Falls, in the county of Herkimer and State of New York, have invented a new and Improved Stove, which I call the "Double-Flued Stove;" and I do hereby declare the following is a full and exact description.

The nature of my invention consists in providing and locating a flue just at the top of the coal or wood grate, and a gas blower or cover to the grate, swinging from the top of that flue so as to rapidly ignite the coal and effectually to carry off the deleterious gas, so that none of it shall escape into the room; by means of which improvement any description of combustible material may be used without any unhealthy or unpleasant effect whatever. In addition to that advantage this stove possesses the virtue of affording a very large degree of heat from a comparatively small quantity of fuel, also of producing a quick as well as durable fire from a given quantity of fuel.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation, and to do so the more definitely and intelligably I refer to the drawings hereto attached which present a perspective and sectional view of the stove. The general figure and out line of the stove is that of a common fire place, and may be made of any desired size and proportions.

Figure A, represents a front view. The jambs, back and bottom can be constructed of metal or of brick at the option of the purchaser, but they would be best constructed of metal. The top, jambs and bottom would be best constructed separately and then put together with rods in the usual manner of ordinary parlor stoves with ledges to keep them in their places. The back is the most important part of the stove, as in that, are the principal improvements. Figure A in the drawing exhibits the back with all the fixtures attached, and Fig. B a sectional view of the same. Fig. 1 in both, represents the upper flue and is situated above the front piece of the stove, but it may extend below, and instead of being constructed of one entire piece of metal the damper, to this flue, if desired may be formed with slats with a bar attached, to open and shut them to any desired distance, this however is a mere matter of taste. There may be one upper flue or two or even more in the back, if necessary; these flues in the back above the gas flue are called smoke flues. They may swing or slide up or down, and may open inwardly or the reverse according to taste. The smoke passing through these flues, is conducted into the fire place and chimney or into stove pipe as is most convenient.

Fig. 3 represents the gas flue and is located immediately above the grate, or it may be a little above it. The cover or damper to this flue may swing or slide up or down, it may be an entire piece of metal or be made with slats, as described of the smoke flues. The use of this flue is to ignite the fuel and to carry off the gas.

Fig. 2 is the gas blower and is situated above the top of the gas flue, and shuts down and completely covers the top of the grate. When new fuel is put into the grate the gas blower (Fig. 2) should be shut down and the gas flue, opened, this will rapidly ignite the fuel, carry off the gas and rapidly increase the heat. When the fuel is sufficiently ignited and purified, the gas blower is to be raised and the gas flue is to be closed, then the smoke flue should be opened wider, so that the smoke may freely pass off. The increased distance that the heat will then have to travel up to the smoke flue will much increase the temperature of the room, and the heat will be long continued from a given quantity of fuel and will be very uniform.

Fig. 4 represents the grate. It should be made with flat bars instead of the usual square or round ones, and be set edgewise, this will render them more durable, but the form is matter of taste. The grate may be located such a distance from the bottom of the fire place or stove as may be convenient. The lower the better.

Fig. 5 represents the slides or flanges by which the grate is attached to the back of the stove or fire place. It is constructed to put on or take off as may be necessary for repair or other convenience.

Fig. 6 represent the bars or stops attached to the back of the stove or fire place for

the grate to rest upon, and should be so placed as to settle the top of the grate just at the bottom of the gas flue.

Fig. 7 represents the ash drawer and is situated directly under the grate. Its use is to keep the hearth neat and free from ashes, &c. It sits on the hearth and below the grate.

This back with the flues, grate and fixtures thereto may be cast or constructed separately from a stove, and may be used in any fire place or put into any other parlor stove. In this way the benefit of the improvement may be secured with economy in expenditure, and the back with flues and dampers may be used without the grate, for the burning of wood.

What I claim as constituting my invention in the within described double flued stove, is—

The manner in which I have combined the movable cover, marked No. 2, in the drawing, with the grate No. 4, and with the damper No. 3, for the purpose of allowing a fire to be kindled below said cover, and thus preventing the escape of gas from the fire into the room; the whole apparatus being constructed and arranged substantially as set forth and described.

DAVID PETREE.

Witnesses:
C. R. JOHNSON,
JOST. D. PETREE.