

S. B. SEXTON.
Heating Stove.

No. 5,158.

Patented June 19, 1847.

Fig. 2

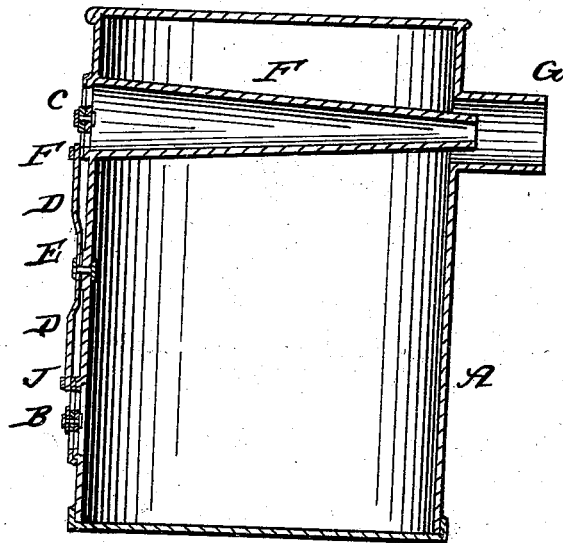
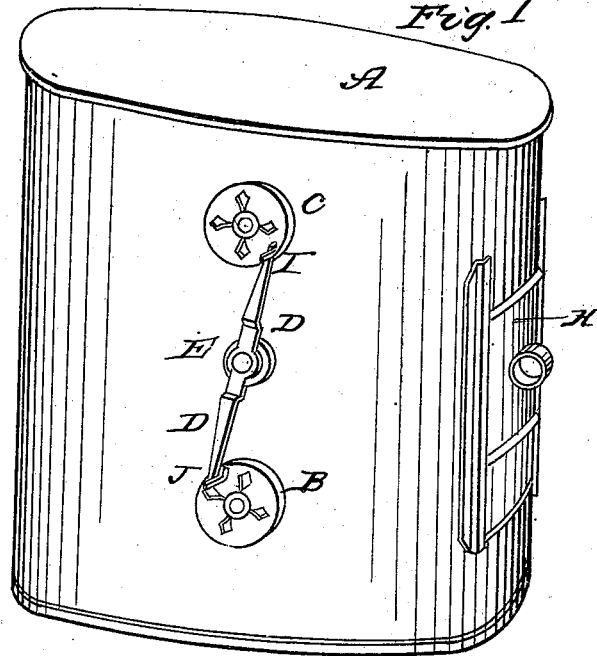


Fig. 1



UNITED STATES PATENT OFFICE.

SAMUEL B. SEXTON, OF BALTIMORE, MARYLAND.

AIR-TIGHT STOVE.

Specification of Letters Patent No. 5,158, dated June 19, 1847.

To all whom it may concern:

Be it known that I, SAMUEL B. SEXTON, of the city of Baltimore and State of Maryland, have invented certain new and useful
5 Improvements in Air-Tight Stoves, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

The nature of my invention and improvement consists in a certain new and useful
10 combination of a ventilator in connection with a register united by a rod in such a manner that when the register is closed the ventilator is opened in the same proportion.
15 Also a new arrangement of a horizontal tapered flue or tube in connection with the ventilator and smoke pipe for the combined purpose of ventilating the room, and having the same pipe to be a safety flue
20 against puffs, or explosions caused by the current of air forced down the chimney into the stove, and likewise for preventing puffs caused by the sudden opening or closing of the door of a close room in which the stove
25 is placed.

The object of the ventilator and tube or pipe is to keep up a circulation of air in the room at all times without the loss of too much heat and to cause the oppressive
30 bad air to pass out of the room through the stove into the chimney without disturbing or agitating the fire and at the same time renders the stove free from explosion or puffs, from slamming of doors or currents
35 down chimney.

Figure 1 is a perspective view of the stove. Fig. 2 is a vertical section through the center of ditto.

Similar letters in the several figures refer
40 to corresponding parts.

First, I make a stove A in the ordinary way with a door H at the end, or other convenient place for the introduction of the wood. About 3 inches from the bottom I
45 place in front of the stove a register B of circular form, or of any other form, that will suit best. I then place one of similar size and form about the same distance from the top which I term a ventilator: this is lettered C. A rod D leading from the register
50 to the ventilator connects them together by inserting the ends of said rod D into loops or staples I J riveted to the register and ventilator. This rod D turns on a pivot E
55 in the center of said rod, fastened to the center of the front of the stove. By mov-

ing the ventilator the rod is moved which moves the register in the same proportion: thus as the stove becomes hot, we close the register B and at the same time open the
60 ventilator C.

On the inside of the ventilator I place a tapered tube F of sufficient size (at the smaller end) to ventilate the room. The small end enters the smoke pipe or collar
65 G, which is made larger to allow the smoke to pass to the chimney through the annular space around the ventilator tube. The large end of the ventilator tube that covers the
70 inside of the ventilator C is secured against the inside of the front of the stove. The air passing into the ventilator tube keeps the ventilator always cool so that it can be handled in regulating the draft without burning
75 the hand although the stove in other places may be quite hot.

This ventilator in the stove makes what may be termed a safety valve; for when the air is forced down the chimney instead of going into the chamber of combustion it
80 passes through the ventilator tube into the room without doing any harm; and the current of cold air that passes through the ventilator and becomes heated while passing through the ventilating tube prevents the
85 smoke from condensing in the pipe and chimney.

I and J are the loops or staples in which the ends of the vibrating rod D play. These loops, or staples, are made in the usual
90 manner, of a rectangular or other form; and riveted to the register B and ventilator C—one to each. Or instead thereof, oblong mortises may be made in the ends of the rod D through which connecting pins with
95 broad flat heads, are inserted—being riveted to the ventilator and register—the oblong mortises being of sufficient length to allow the requisite play of the rod D as the plates B and C are turned.
100

What I claim as my invention and improvement and desire to secure by Letters Patent is—

The manner of combining the ventilator C with the register B by means of the vibrating connecting rod or lever D, inserted
105 into the loops I, J, and turning on the central pivot E, for the purposes above stated.

SAMUEL B. SEXTON.

Attest:

FR. FORSTER,
GEO. MURRAY.