D. S. QUIMBY.

Fireplace.

No. 19,713. Patented March 23, 1858.

Fig. 1.

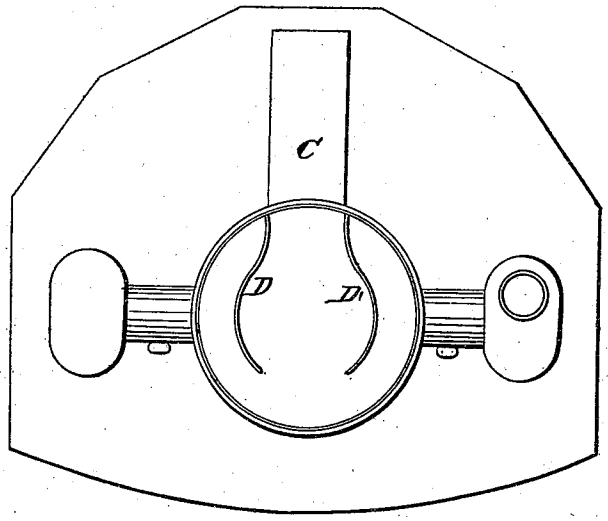


Fig. 2.

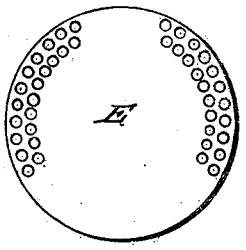


Fig. 4.

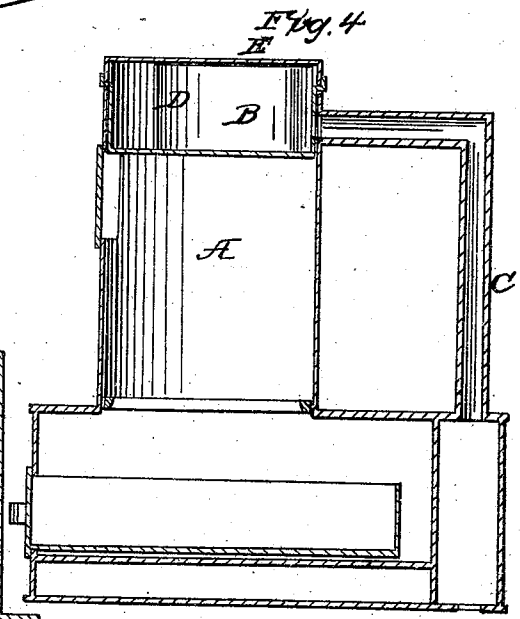
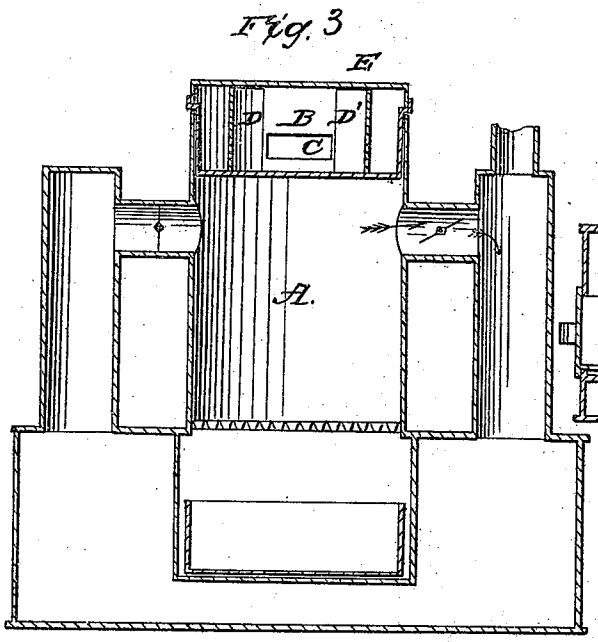


Fig. 3.



UNITED STATES PATENT OFFICE.

DAVID S. QUIMBY, OF BROOKLYN, NEW YORK.

STOVE-HEATING APPARATUS.

Specification of Letters Patent No. 19,713, dated March 23, 1858.

To all whom it may concern:

Be it known that I, DAVID S. QUIMBY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Heater to be Applied and Attached to Heating-Stoves; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a plan view of the heating stove with my improvement attached—the cover of the heater being removed and shown in Fig. 2 detached. Fig. 3 is a vertical longitudinal section and Fig. 4 is a vertical transverse section of the same.

My improvement is applicable to any description of heating stove and is designed for the purpose of creating an increased amount of heated air, but it is more particularly intended for a class of heating stoves that are set and used in fireplaces, where the stove serves the purpose of heating the room in which it is placed and where the air heated by the heater is taken off by a flue or by pipes to warm another room—the requisites for this class of stove being a large heating surface in a contracted and restricted space.

A is the cylindrical body of a heating stove, of well known form and construction, in which the fuel is placed and burned. The products of combustion pass from the cylinder directly to the pipe leading to the chimney—by opening a damper—when the fire is started or when it is replenished with fuel, and pass down the flue at one side, through the flue at the base of the stove, and through the flue at the other side to the exit pipe by closing the damper, after the fuel is properly ignited—the increased amount of heating surface with which the heated gases and products of combustion then come into contact creating a greater amount of heat in the room than when the draft is opened direct to the flue or chimney.

B is the heater, of cylindrical form, (or in case the body of the stove is made of other than cylindrical form, it is made to suit that form) which is placed within or upon the top of the body of the stove. It is compressed and contracted in height so as to take up as little room in height as is consistent with the requirement of its having sufficient capacity to allow the free passage of a current of air through it to be heated. Its bottom part is exposed to the immediate action of the fire in the body of the stove, so that it gets heated to a high degree. At the lower part of its back side is an aperture which meets the opening of the cold-air pipe C, to permit the current of cold air brought in by that pipe to pass into the heater. The supply of cold air is brought to the pipe C by a pipe leading from it to such point in the external walls of the house as may be most readily reached, or from a cellar or other cold room in the house, as may be most expedient.

D D′ are division plates placed inside of the heater, and reaching from its bottom to its top, to confine the current of air brought in by the pipe C and bring it in contact with the center and most highly heated portion of the bottom of the heater, and pass it to the passages formed between the outside of the division plates and the inner sides of the heater before it passes off to the room in which it is to be used, so that it receives a much greater degree of heat than if it were allowed to pass directly off from the heater without the interposition of the division plates.

E is the top plate to the heater, secured to it, and having the joint between them made tight by any of the known means to effect those purposes, which has a series of apertures in it which are placed over the passages formed between the division plates and the sides of the heater to permit the egress of the heated air from the heater either to the room in which the stove is placed or to a flue or pipe by which it is carried off to warm another room.

By means of this improvement I am enabled to heat to a high degree a greater amount of air than can be effected by any other arrangement applicable to the same purpose now in use or known, while it is simple and inexpensive in its construction and is readily applied and operated.

I do not claim the use or construction of the stove, nor combining a heating stove and heater in one apparatus, nor bringing a cur-

rent of cold air to the heater to be heated and diffused in the same or another room, but

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

The arrangement of the heating chamber B, provided with deflecting plates D, D′ and apertures in the top plate, with the cold-air flue, in connection with the stove or furnace A, constructed and operating as described.

DAVID S. QUIMBY.

Witnesses:
SIDNEY LOW,
FRANCIS S. LOW.