

(No Model.)

L. P. CONVERSE.
HEATING STOVE OR FURNACE.

No. 358,432.

Patented Mar. 1, 1887.

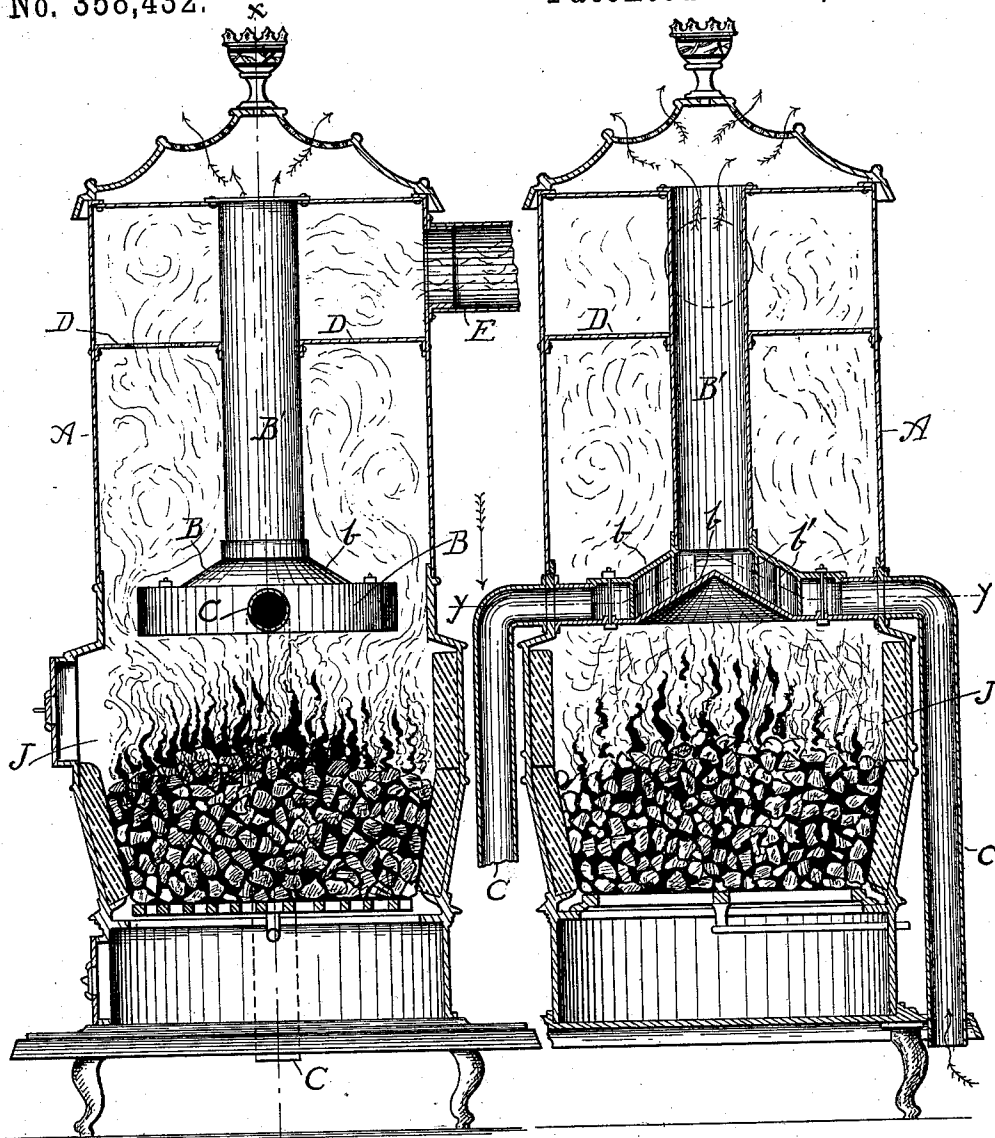
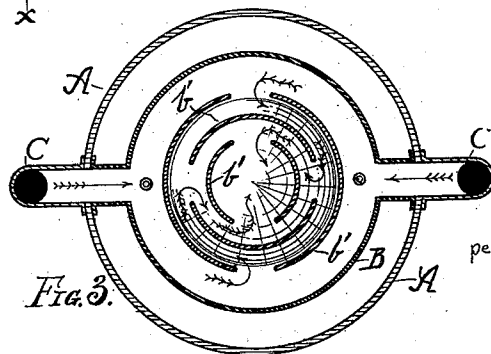


FIG. 1.

FIG. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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HEATING STOVE OR FURNACE.

SPECIFICATION forming part of Letters Patent No. 358,432, dated March 1, 1887.

Application filed October 24, 1885. Serial No. 180,824. (No model.)

To all whom it may concern:

Be it known that I, LYMAN P. CONVERSE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Heating-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to heating stoves or furnaces wherein the surrounding air is conducted through a suitable conveyer or conveyers into an air-heating chest or receiver forming a part of the interior thereof, and from thence discharged into the room or rooms which it is desired to heat thereby; and it consists in the combination and arrangement of devices hereinafter set forth, and pointed out in the appended claim.

In the drawings, Figure 1 is a sectional elevation of a stove, taken centrally through the doors and smoke-escape pipe, showing my invention; Fig. 2, a sectional elevation thereof, taken on the line XX of said Fig. 1; Fig. 3, a transverse section taken on the line Y Y of said Fig. 2.

Within the casing A, at a suitable distance above the fire-pot J, is located the air-heating chest or reservoir B, which is a simple shell of cast or sheet iron, preferably having its upper and lower portions *bb* of convex and concave shape, respectively, and being of such diameter with relation to the diameter of said casing that in its suspended position the products of combustion passing from the fire-pot completely encircle and heat its exterior surfaces. Connected with said chest or shell are one or more cold-air-induction pipes, C, which extend therefrom downwardly to a point at or about the base of the stove, and, being suitably fixed to and sustained by the casing A, form at the point of their connection with said chest or shell a sufficient support therefor. From the upper or convex portion of said chest or shell B is extended upwardly a cylindrical hot-air-eduction pipe, B', which is sustained, preferably at about the middle of its length, by a diaphragm, D, and at its upper end by the plate forming the upper end of the stove-cylinder. Within the interior of said chest or shell, and forming a part of the up-

per or lower portions thereof, as may be most desirable or expedient, are located a series of irregularly-broken annular ribs or flanges, *b'*, the office of which is to deflect and retard the passage of the air in its travel from the induction-pipes C through said heating chest or shell to the eduction-pipe B'.

The diaphragm D, provided with suitable smoke-escape openings, being located about midway the distance between the chest or shell B and the top of the stove, prevents the products of combustion from rapidly passing to the smoke-escape pipe E, the result obtained thereby being the heating of the eduction-cylinder above and below said diaphragm and the air passing through its interior more thoroughly than would be the case if such diaphragm was not present.

The operation of my invention is as follows: The chest or shell B being heated, the cold air is drawn through the induction-pipes C, and in passing therefrom through said chest or shell is deflected through and around said irregularly-broken annular ribs or flanges *b'*, so that it comes in contact with the entire heating-surface of said chest, thence passing through the eduction-pipe B' to the point or points of discharge at or about the end of said pipe, or through the upper cap of the stove, as shown.

It is obvious that with the arrangement herewith shown and described a much greater amount of heat can be obtained from any style of heating stove or furnace and with a more economical use of fuel than is ordinarily and necessarily employed.

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

In a heating-stove, the combination, with the fire-pot J and casing A, of a concavo-convex air-heating chest, B, suspended centrally over the fire-pot and communicating with the outer air, and provided internally with irregularly-broken annular flanges *b'*, a conduit, B', leading from the chest B into the apartment to be heated, containing the stove, and a perforated diaphragm, D, surrounding the conduit B within the casing A above the chest B, substantially as described.

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Witnesses:

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