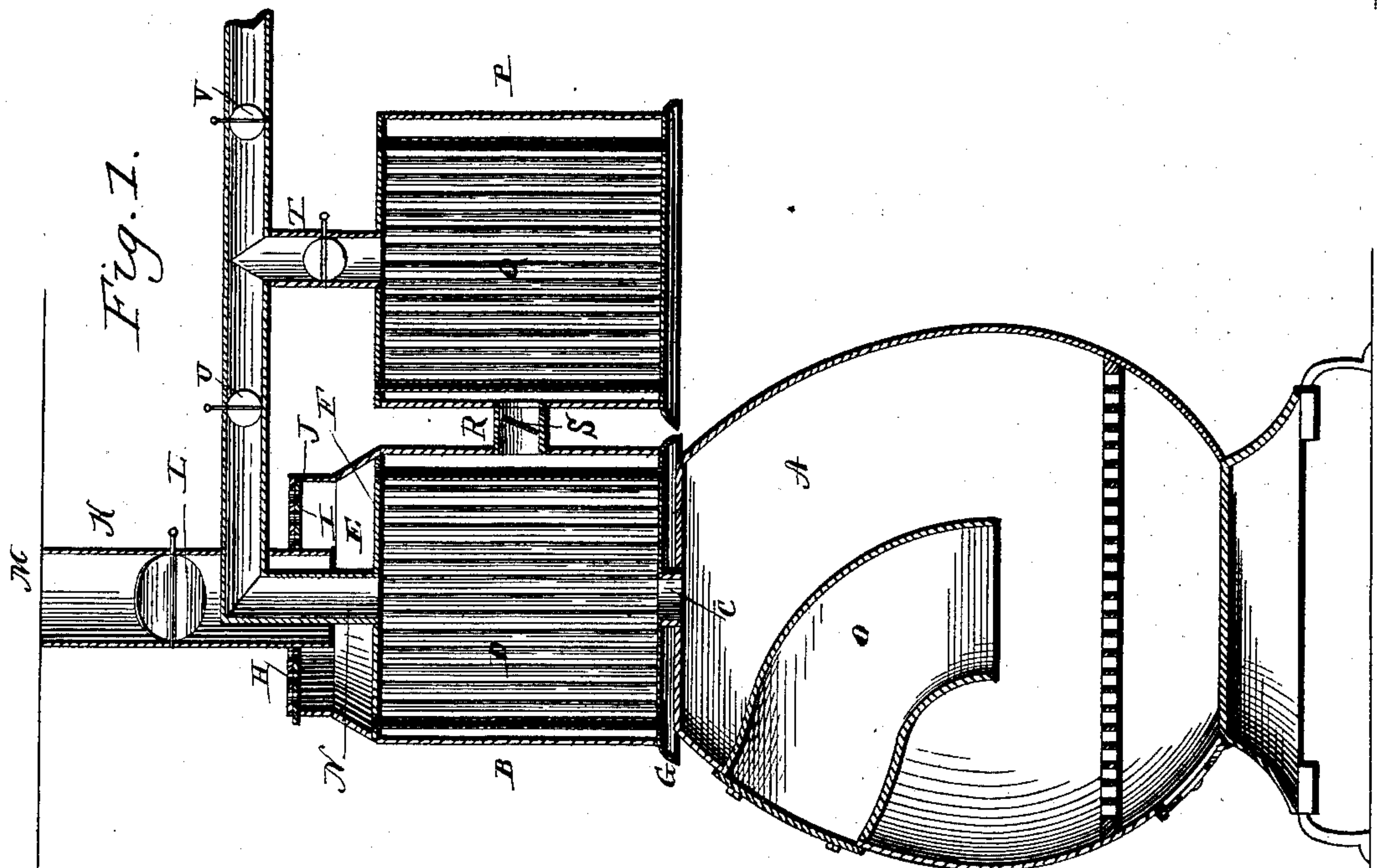
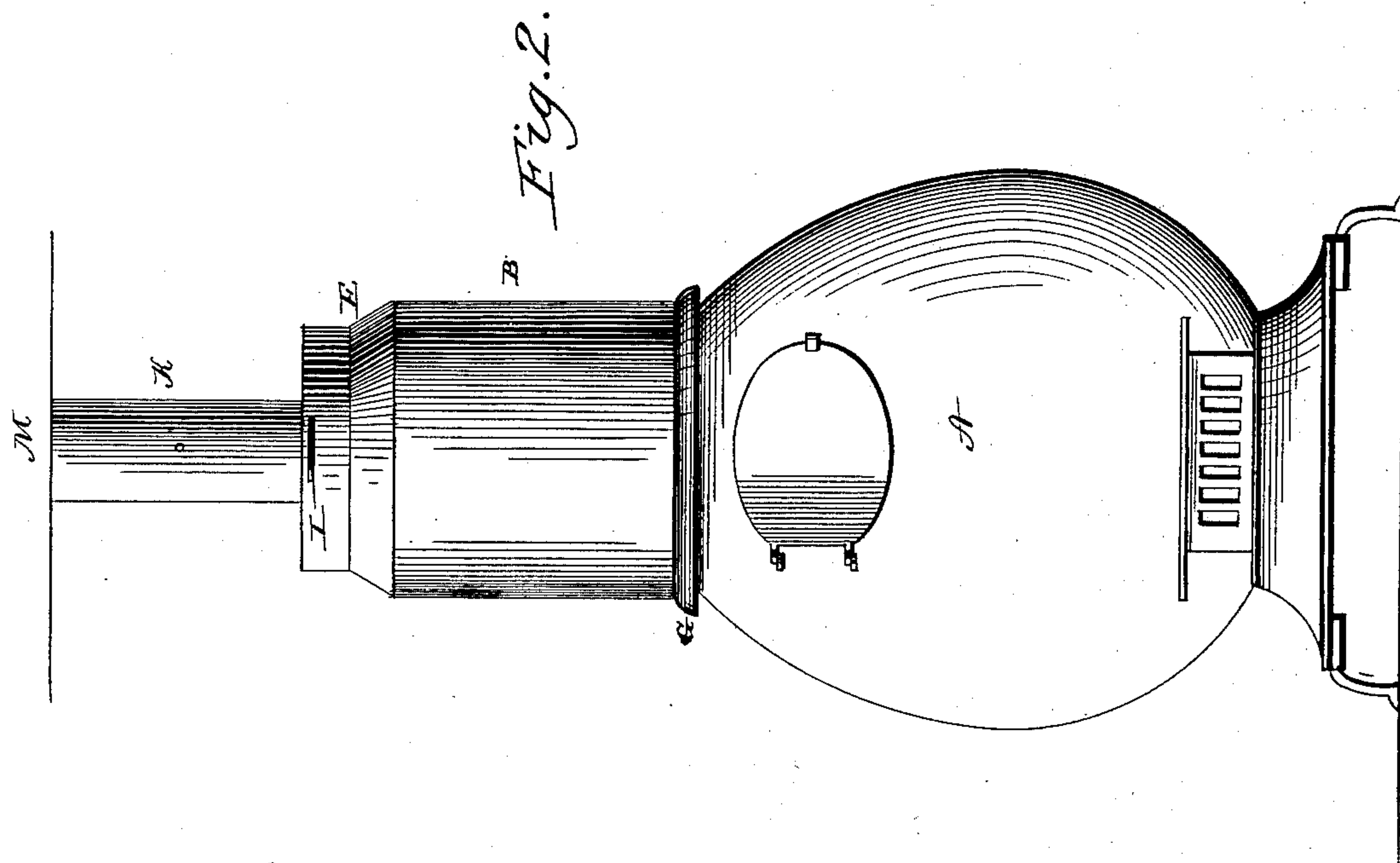


(No Model.)

E. C. FROST.
HEATING STOVE.

No. 367,510.

Patented Aug. 2, 1887.



WITNESSES
F. L. Ourand
Arthur S. Morse

INVENTOR,
Eli C. Frost,
By *Louis Baggett & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

ELI C. FROST, OF ELMIRA, NEW YORK.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 367,510, dated August 2, 1887.

Application filed July 19, 1886. Serial No. 208,395. (No model.)

To all whom it may concern:

Be it known that I, ELI C. FROST, a citizen of the United States, and a resident of Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Heating-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical sectional view of my improved heating-stove, and Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to that class of heating-stoves in which the products of combustion pass from the fire-pot up through a casing having a number of flues conveying air to be heated; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the fire-pot of the stove, which may be of any desired shape or construction; and B indicates a casing secured upon the top of the fire-pot a short distance above the same and communicating with the fire-pot by means of a flue or flues, C, passing from the top of the fire-pot to the bottom of the casing.

Vertical flues D pass from the bottom of the casing to a chamber, E, formed at the top of the casing by means of a horizontal partition, F F, having the upper ends of the flues opening into it, and the lower end of the casing is formed with a flaring flange, G, which will serve to conduct air into the space between the casing and the top of the fire-pot, directing the air to the vertical flues, in which it will be heated.

The top of the chamber in the upper end of the casing is formed with a number of perforations, H, and a plate, I, having registering perforations J, slides under the perforated top, so that by sliding the register-plate the current of air passing up through the top may be

governed; and the top of the chamber is furthermore provided with an upwardly-extending hot-air pipe, K, which is provided with a damper, L, and with a suitable register-plate, M, at the point at which it opens in the floor above, the hot-air pipe carrying hot air to a room above.

The smoke flue or pipe N opens into the casing or drum, and may either open at the top or in the side of the same.

A magazine, O, serves to convey the fuel into the fire-pot, and opens into the same from the front, rear, or from either of the sides.

A casing or drum, P, is supported at the side of the drum or casing upon the fire-pot, and is formed with a number of vertical flues, Q, similar to the flues in the other drum, and this drum has communication with the drum upon the fire-pot through a short pipe, R, provided with a damper, S, and opening in the sides of the two drums. The casing is provided with a smoke-pipe, T, which communicates with the smoke-pipe from the drum upon the fire-pot, and this pipe from the fire-pot is provided with two dampers, U and V, one at each side of the point at which the pipe of the additional drum enters it, so that the smoke may be either cut off, to pass through the additional drum, or it may be allowed to pass freely through the pipe without entering the additional drum, while the other damper may serve to regulate the draft in the pipe. It will thus be seen that the products of combustion may be carried up through the drum over the fire-pot, where they will heat the air passing up through the vertical flues, and the flow of heated air may be governed by means of the register-plate, which may allow more or less heated air to pass up, while it may cut the current off entirely when closed, allowing the heated air to pass up through the heating-pipe or hot-air flue, which will conduct the air to the room above, the damper being opened when the air is to be conducted to the room above, while it is closed when the air is to pass out through the register-plate upon the top of the drum. The products of combustion may now pass into the auxiliary drum, which will heat the air passing up through its flues, and when both of the drums are used

the air of the room in which the stove is may be heated and the air in the room above at the same time.

5 The additional drum may be dispensed with, and various modifications may be made in the construction of the various dampers or register-plates, and the shape of the fire-pot and drum may be changed, without departing from the spirit of my invention.

10 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a heating-stove, the combination of a fire-pot, a drum secured a short distance above
15 the top of the fire-pot and communicating with the same through its bottom and having a flaring flange around its lower edge, and a series of vertical flues passing from the space between the bottom of the drum and the top of
20 the fire-pot to the top of the drum, as and for the purpose shown and set forth.

2. In a heating-stove, the combination of a fire-pot, a tubular drum secured slightly above
25 the top of the same, a flue connecting the bottom of the drum with the top of the fire-pot,

a flange upon the bottom of the tube extending below and surrounding the top of the fire-pot, and a chamber above the top of the drum, having the flues opening into it and having a perforated top provided with a sliding register-plate, and a pipe leading from the top of said drum. 30

3. In a heating-stove, the combination of a fire-pot, a drum above the fire-pot and communicating with the same, a pipe leading from
35 the top of said drum, having two dampers, and an auxiliary drum having a pipe in its side and another at its top, each of said pipes being provided with a damper, the pipe at the side communicating with the drum over the
40 fire-pot and the pipe from the top communicating with the pipe from said drum between said two dampers.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature
45 in presence of two witnesses.

ELI C. FROST.

Witnesses:

GEO. W. DOYLE,
T. H. JUDSON.