M. CAMPBELL.
Heating-Stove.

No. 203,117. Patented April 30, 1878.

Fig. 1.

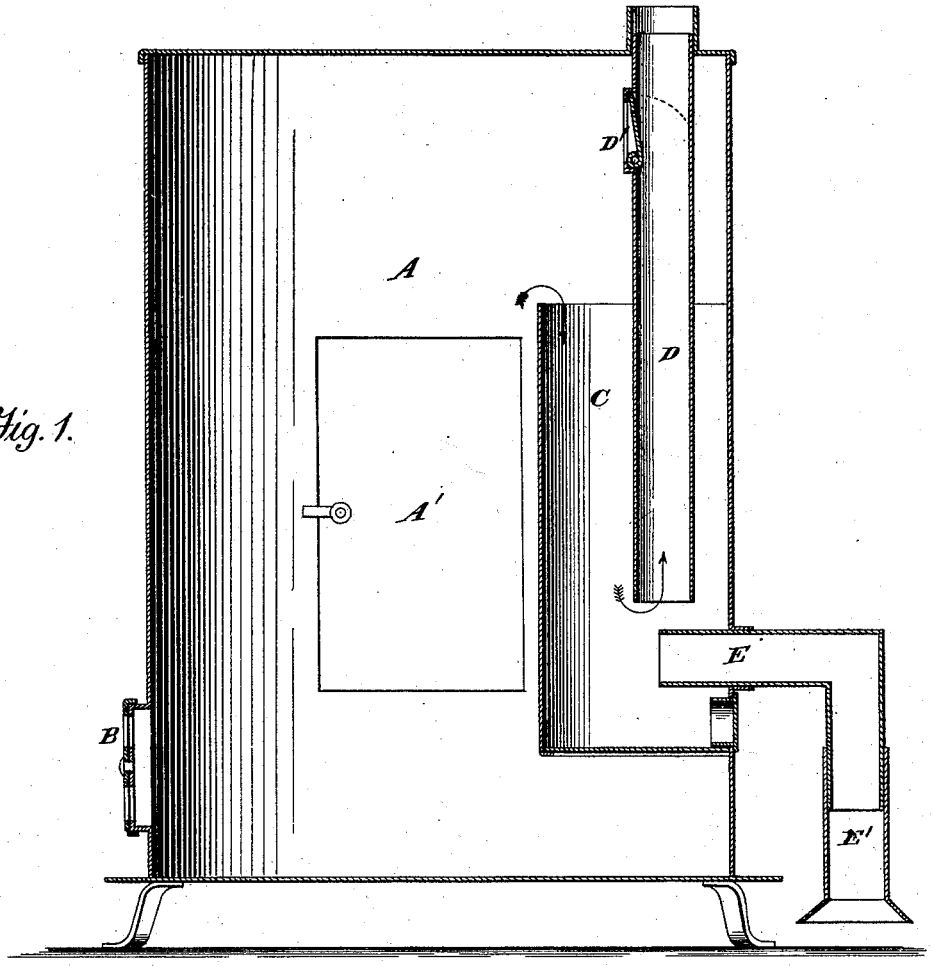
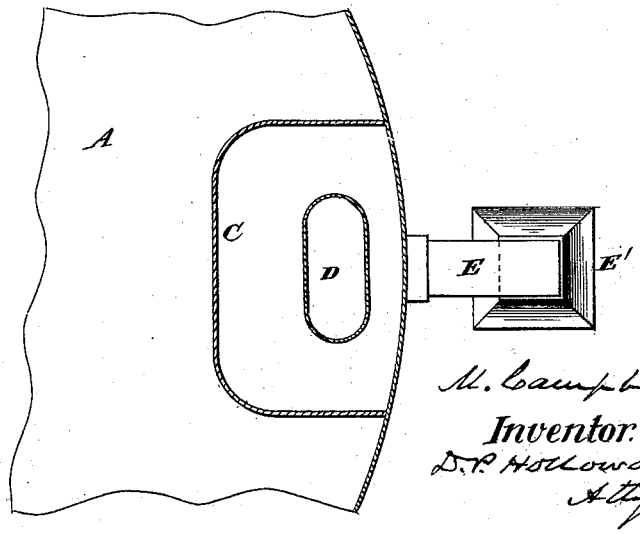


Fig. 2.



Witnesses.
A. Ruppert,
J. G. Mason.

M. Campbell
Inventor.
D. P. Holloway & Co
Attys

UNITED STATES PATENT OFFICE.

MARVIN CAMPBELL, OF SOUTH BEND, INDIANA.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **203,117**, dated April 30, 1878; application filed March 18, 1878.

To all whom it may concern:

Be it known that I, MARVIN CAMPBELL, of South Bend, in the county of St. Joseph and State of Indiana, 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 my 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, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to take up the cold air from close to the surface of the floor, to introduce it into a chamber in the uptake, in such a manner as to check the draft, and thereby promote economy in the consumption of fuel.

My invention is limited to the construction and arrangement of parts within the shell of a heating-stove, analogous means having heretofore been employed for controlling the draft of fire-places.

In the annexed drawings, Figure 1 is a vertical section. Fig. 2 is a horizontal section.

The same letters are employed in both figures in the indication of identical parts.

A is the body of the stove, provided with the ordinary door A′ and draft-opening and damper B. C is a chamber formed within the stove, open only at the top, forming a descending flue, down which the draft passes to the lower end of the pipe D, extending from a point near the bottom of the chamber C, through the top of said chamber, and thence out through the shell of the stove, through which it escapes, as indicated by the arrows in the drawing.

E is a cold-air pipe, passing through the shell of the stove, and opening into the chamber C below the pipe D. It is bent down outside of the stove, and has upon the lower end an adjustable sleeve, E′, with a flaring mouth, which extends down nearly to the floor, for the purpose of drawing off the cold and more impure air which settles near the floor. The sliding sleeve allows its adjustment, so that it may be, if desired, extended down so as to touch, or nearly touch, the floor, thus cutting off the draft through the pipe E in whole or in part.

Cold air, rising through the pipe E, entering the chamber C at the bottom and below the pipe D, has a tendency, by reducing the temperature of the gases at that point, to check the outflow thereof, and thus restrain the draft, thereby greatly increasing the pressure of hot air in the stove, and so promoting radiation of the heat.

D′ is a damper, operated by a rod from the outside of the stove, placed in the pipe D above the chamber C, covering a hole in the pipe when the draft is passing through the chamber C.

By throwing back the damper D′, and so opening the hole in the pipe D above the chamber C, and at the same time closing the slide in the cold-air pipe E′, and so preventing the ingress of cold air, a direct draft is secured when desired.

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

In combination with the sleeve of a stove, an interior chamber, C, attached thereto, a pipe, D, extending through the chamber C from the lower part thereof and out through the shell of the stove, fitted with a damper, D′, placed above the chamber, and a cold-air pipe, E, bent and fitted with a sliding sleeve, E′, capable of being extended to the floor, whereby air of the lowest temperature may be discharged into the bottom of the chamber C to check the draft, or, the air-supply being cut off entirely, the direct draft may be drawn from the combustion-chamber without entering chamber C, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MARVIN CAMPBELL.

Witnesses:

C. S. WILLIAMS,

A. RUPPERT.