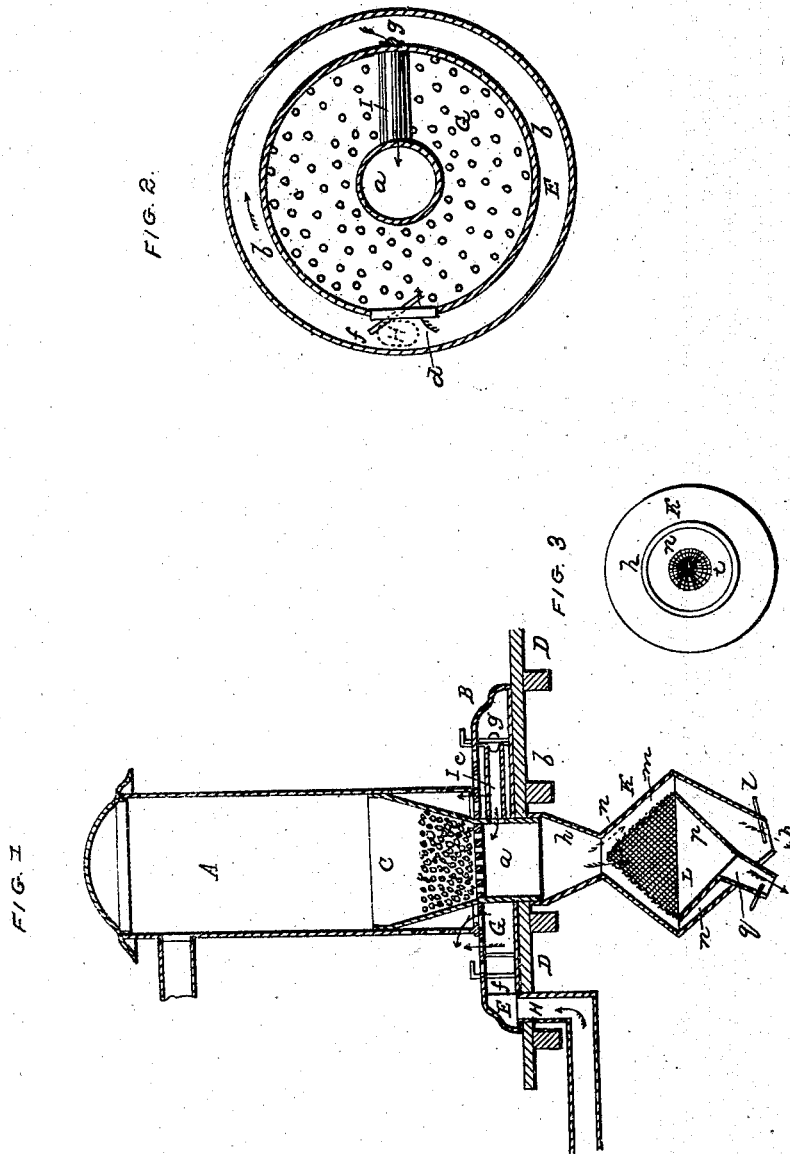


E. A. PARKER.

Stove.

No. 47,218.

Patented April 11, 1865.



WITNESSES:

Jas. Wyatt
R. S. Osgood

INVENTOR.

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UNITED STATES PATENT OFFICE.

EDWIN A. PARKER, OF HORSEHEADS, NEW YORK.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. 47,218, dated April 11, 1865.

To all whom it may concern:

Be it known that I, EDWIN A. PARKER, of Horseheads, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Stoves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a central longitudinal vertical section of my improved stove; Fig. 2, a plan of the bottom or base inverted, and showing more particularly the air-passage for supplying the combustion and the arrangement of the heating-chamber; Fig. 3, a plan of the ash-lifter detached.

Like letters of reference indicate corresponding parts in all the figures.

It has long been a favorite idea to introduce the draft to support the combustion in stoves, furnaces, and fire-places from the outside of the room in which such stoves, &c., are situated, in order to avoid vitiating the air of the apartment. Such a device was adopted by Count Rumford many years ago, and has been the subject of many inventions since, both in Europe and America.

It has also long been a favorite idea to introduce the air from the outside into a chamber connected with the stove or furnace, so as to be heated and furnish to the room a constant and fresh supply to produce proper ventilation; but in no device with which I am acquainted have both these ideas been combined.

My invention consists, first, in a peculiar arrangement of the base of the stove, whereby the air that is drawn from the outside of the room goes partly to support the combustion and partly to supply a chamber, where it is heated, and where it flows constantly into the room to heat and ventilate it.

As represented in the drawings, A is a stove of any ordinary construction, resting on a hollow base, B, and provided with a fire-chamber, C, whose bottom *a* is open and extends through the flooring D into the cellar. The hollow base B is divided by a circular partition, *b*, into two compartments, E G, the former being merely a circular air-passage at the periphery, of suitable size to allow the passage of the necessary amount of air,

and the latter a comparatively large central chamber, surrounding the base of the fire-pot, so as to come near the fire, and provided at its top with perforations *c c c*, to allow the heated air therein to flow into the room. If desired, a register may be used in combination with these perforations to graduate the flow of air at any time. Into the passage E, on one side of the stove, opens an induction air-pipe, H, which extends into the cellar or beneath the flooring and thence outward into the open air. Communication is had between the passage E and heating-chamber G by means of an opening, *d*, in which fits a valve, *f*, that the supply may be turned on or off at pleasure. On the opposite side of the stove from the opening of the induction air-pipe a draft-tube, I, connects with the passage E, and, passing through the heating-chamber, opens into the base *a* of the fire-pot beneath the grate. The entrance to the tube I is covered by a valve, *g*, similar to that which covers the opening to the heating-chamber.

The cold air from the induction-pipe H, drawn from the cellar or from the outside, entering the passage E, passes around to the opposite side and a portion enters the tube I to support the combustion. In thus passing around the passage E the cold air becomes to a certain degree heated before it enters the draft-tube, and therefore in better condition to produce combustion than if it entered the fire-pot directly in its cold state, as in the case with other or similar devices with which I am acquainted. This effect of heating the draft air is also further produced by carrying the pipe I directly through the heating chamber, where it is surrounded by the hot air. At the same time that this effect is produced, a portion of the air from the passage E enters through the opening *d* into the heating-chamber G. Here, from the proximity of the chamber to the base of the fire-pot which it surrounds, the air becomes rapidly warmed and flows constantly through the perforations *c c c* into the room, thus producing a constant supply of pure air and properly ventilating the apartment. It will be seen that at any time either of the valves *f g* may be closed, thus turning off the supply to either the draft-tube or heating-chamber. This arrangement is very simple, cheap, and convenient, and occupies no

extra space. The base B is of a shape similar to that employed in many stoves. In ordinary devices, where a heating chamber is employed, the chamber is situated up within the stove and not at the base. In mine it is situated at the base, which makes it especially convenient for warming the feet. In simple ordinary radiating coal-stoves the bottom is always cold, and this is a great objection to their use. I overcome these popular objections, while I at the same time produce positive advantages which I believe are new.

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

The special arrangement for supplying

the air drawn from the outside of the room partly to support the combustion and partly to supply the room, the same consisting of the passage E, central heating-chamber, G, the induction-pipe H, and draft-pipe I, operating substantially in the manner and for the purpose herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

E. A. PARKER.

Witnesses:

L. A. HUMPHREY,
J. S. HUMPHREY.