

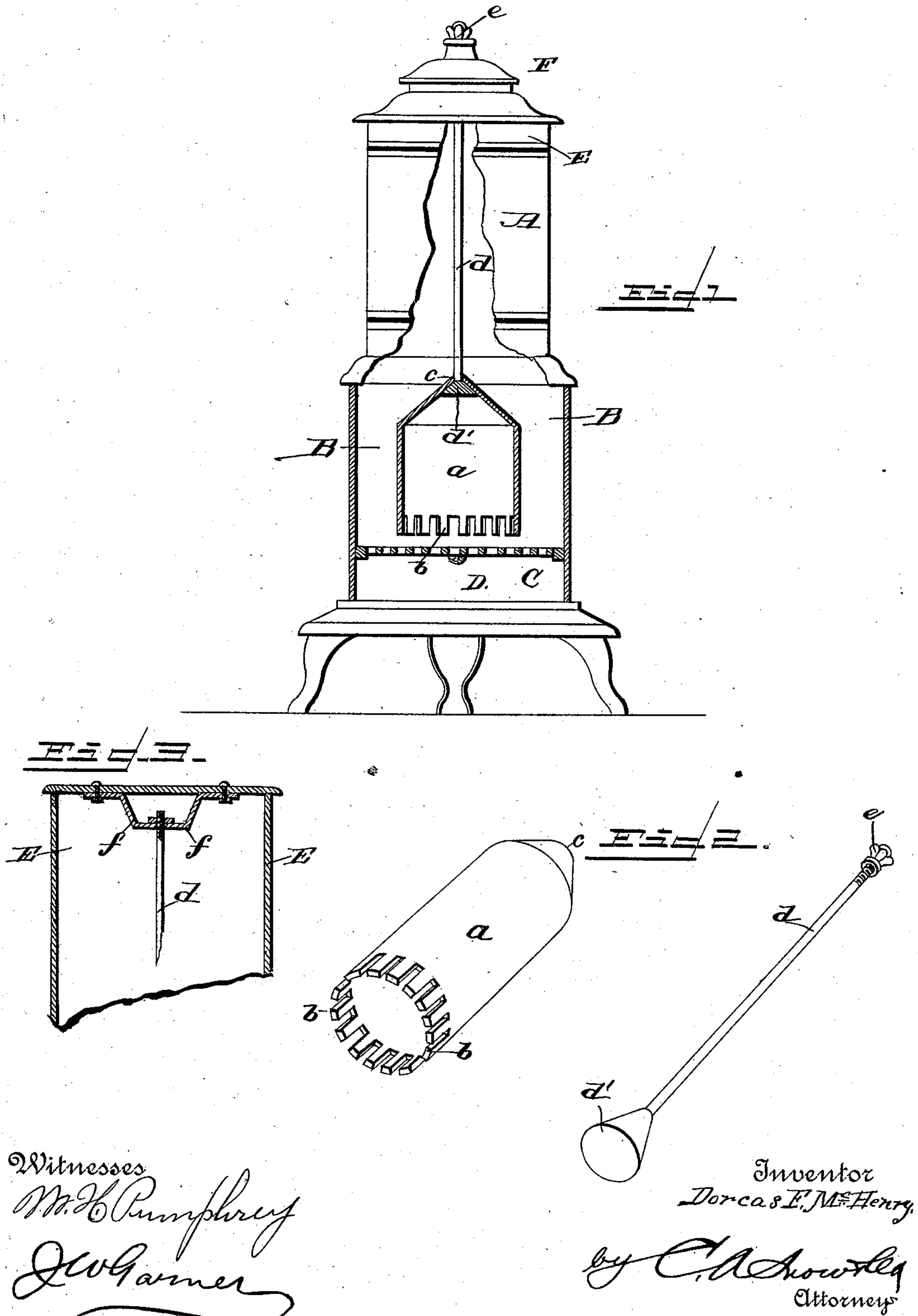
(No Model.)

D. F. McHENRY.

HEATER.

No. 373,082.

Patented Nov. 15, 1887.



UNITED STATES PATENT OFFICE.

DORCAS F. MCHENRY, OF EXCHANGE, PENNSYLVANIA.

HEATER.

SPECIFICATION forming part of Letters Patent No. 373,082, dated November 15, 1887.

Application filed May 19, 1887. Serial No. 238,803. (No model.)

To all whom it may concern:

Be it known that I, DORCAS F. MCHENRY, a citizen of the United States, residing at Exchange, in the county of Montour and State of Pennsylvania, have invented a new and useful Improvement in Heaters, of which the following is a specification.

My invention relates to an improvement in heaters; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claim.

The object of my invention is to provide an attachment for heaters which will be useful in saving fuel, in facilitating the removal of ashes and slate, and in preventing the formation of clinkers.

In the accompanying drawings, Figure 1 is a sectional view of a heater of common form provided with my improved attachment. Fig. 2 is a detached perspective view of my improved attachment. Fig. 3 illustrates another mode of securing the lifting-rod to the top of the heater.

A represents a heating stove of common form, of which B represents the fire-pot, C represents the grate, D represents the ash-pit, E represents the top, and F represents the usual lid or cover in an opening in the top.

a represents a hollow cylindrical core or center, which is made of cast-iron, fire-clay, both combined, or any other suitable material that will endure great and prolonged heat. The lower edge of this core or center is notched at b, and the upper end thereof is conical in shape, as shown, and provided at the apex of the core with an opening, c. This core or center is suspended in the center of the fire-pot of the heater, with the lower notched edge resting a few inches above the center of the grate, the diameter of the said core or center being considerably less than the diameter of the fire-pot, and the height of the said core or center being also less than the depth of the fire-pot in which it is placed, as shown in Fig. 1.

The core or center should conform to the shape of the fire-pot in which it is designed to be placed, and I therefore do not limit myself to making the core or center of cylindri-

cal form, as the same may be made angular or in any other form to adapt it for use in a stove or heater of any shape.

d represents a rod which suspends the core or center, and which is preferably made of iron or steel, and is passed through the opening c in the top of the core or center, and has its lower end provided with a conical-shaped enlargement or knob, d', adapted to fit snugly in the top of the core or center. The upper end of the said rod is passed through an opening in the stove-lid or cover F, and has a cap or nut, e, screwed onto it, as shown, thereby screwing the upper end of the rod to the lid, but enabling the said rod and the center or core attached thereto to be drawn upward by grasping the cap or nut, without elevating or removing the stove-lid, as will be readily understood.

In the event that the stove has no removable lid in its top, a bracket or bridge, f, such as shown in Fig. 3, may be screwed to the under side of the stove-top and provided with a central opening to secure the upper end of the rod d, as shown. Other means may also be employed to attach the rod to the stove and to raise the center or core, as I do not limit myself in these particulars.

The operation of my invention is as follows: The core or center is suspended in the fire-front, above the grate, as described, and a fire is built in the fire-pot entirely surrounding the core or center, which latter consequently fills a considerable space in the center of the fire-pot, and consequently reduces the quantity of fuel required to fill the same. It is known that the amount of air heated by contact with the fire-pot depends upon the superficial area of the same, and it follows that by providing a core or center for the fire-pot the diameter, and consequently the superficial area of the latter, may be increased, and the same can be heated by the same amount of fuel required by a much smaller fire-pot not provided with my improved core or center. The core or center radiates heat outwardly and upwardly from the outer side, and the inner surface radiates heat downward to the base of the heater, where it passes out through the notches b, being thereby divided into a number of currents

which ascend through the fire, causing a number of drafts, which accelerate combustion, as will be readily understood.

When it is desired to clean out the interior of the fire-pot, the core or center is raised, which causes the ashes, slate, cinders, and clinkers to be dislodged and shaken, and thereby caused to fall upon the grate, from whence they may be readily removed in the usual manner.

In the event of any clinkers becoming lodged in the grate the core or center can be lowered and given a slight rotary motion, thereby grinding and destroying the clinker by means of its lower notched edge. This lowering of the core is accomplished by turning the nut *e* so that it rides toward the end of the rod *d*, as will be understood.

Having thus described my invention, I claim—

The combination of the case *a*, closed at the top and open at the bottom, and having the notches *b* at its lower open end, and the suspending-rod *d*, having the conical enlargement *d'* at its lower end to engage with the top portion of the case, the said rod *d* being screw-threaded at its upper end and engaged by a nut after passing through the removable top cover of a stove, substantially as described.

DORCAS F. McHENRY.

Witnesses:

MONTRAVILLE McHENRY,
JANE M. E. GRAY.