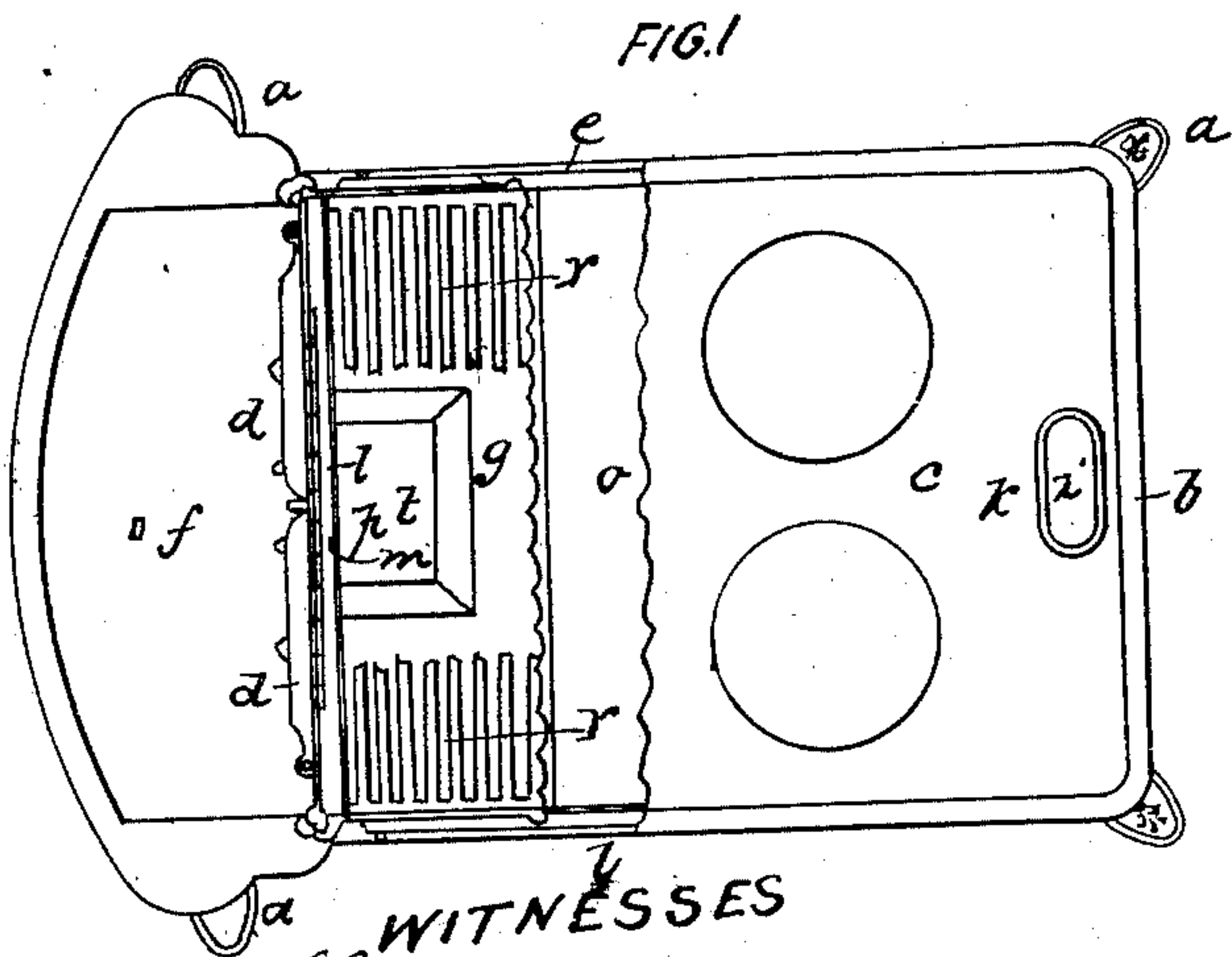
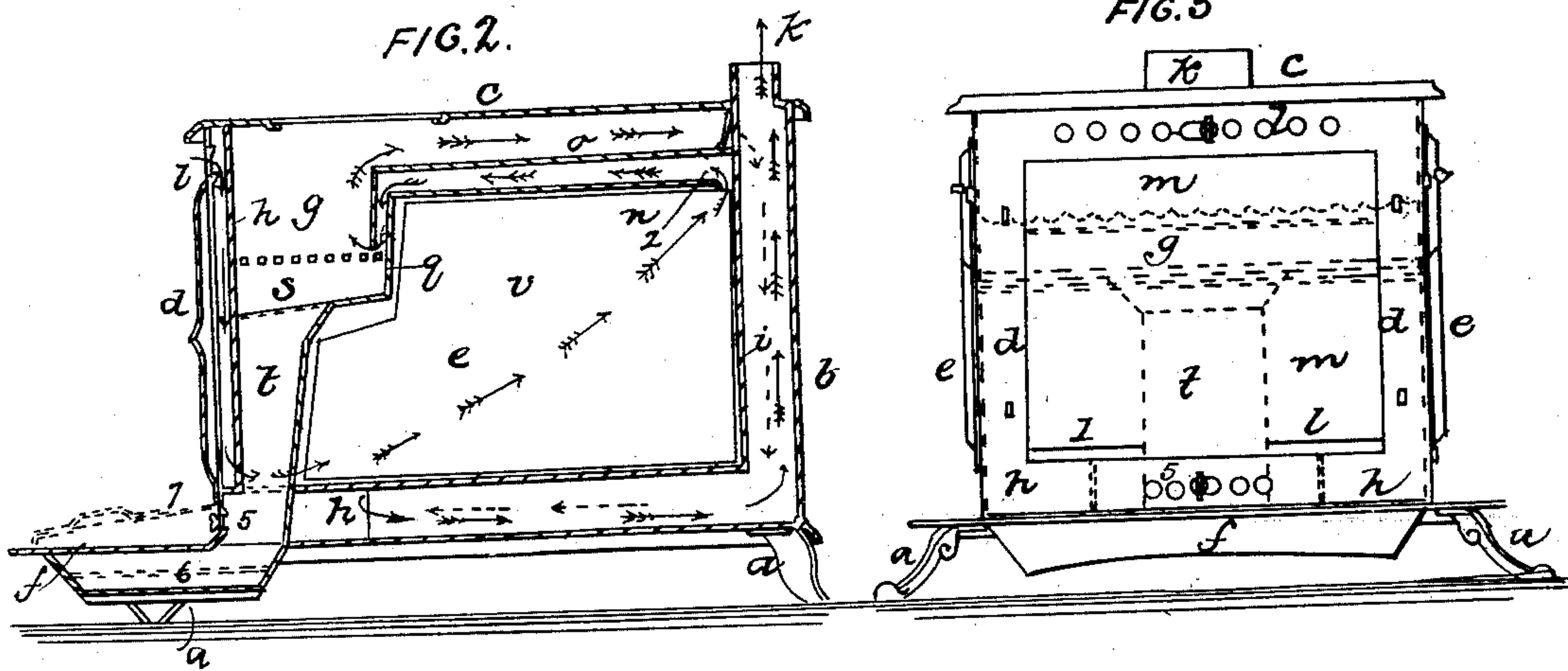


J. C. HENDERSON.

Cooking Stove.

No. 28,081.

Patented May 1, 1860.



WITNESSES
Lemuel W. Knell
Chas. H. Smith

INVENTOR
J. C. Henderson

UNITED STATES PATENT OFFICE.

JOSEPH C. HENDERSON, OF ALBANY, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 28,081, dated May 1, 1860.

To all whom it may concern:

Be it known that I, JOSEPH C. HENDERSON, of Albany, in the county of Albany and State of New York, have invented, made, and applied to use certain new and useful Improvements in Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a plan of my improved stove, Fig. 2 is a vertical longitudinal section, and Fig. 3 is a front view with the front doors opened or removed.

Similar marks of reference denote the same parts.

My present invention will be found to be an improvement upon that for which Letters Patent were granted to me July 19th 1859.

My present improvements relate to the construction of the ash box with a tube to convey the ashes through the oven to the front hearth, instead of said ashes requiring to be taken away by a receptacle on the oven door, such receptacle not only being cumbersome on the door but often causing ashes to fall into the oven itself. I also make use of a double top to the oven combined with an air space between the oven and the fire and side openings into the fire.

In the drawing *a, a*, are the legs, and base of the stove, *b* is the back plate, *c*, the top plate, *d*, the front plate and doors, *e, e*, the side plates and oven doors, and *f* is the hearth. These parts thus far may be of any ordinary character adapted to the interior parts, to which my invention relates.

g is the fire box over the oven *v*, from which the heat travels in the usual manner between the oven plate *o*, and top plate *c*, thence by the descending side flues and the three flues *h*, in the base and the vertical flue *i*, to the stove pipe at *k*.

The manner of admitting draft to the fire is as follows: *l*, is a register in the front plate of the stove through which the air is admitted and the same descends between the doors *d*, and front plate *m*, of the fire box, and this plate *m*, descends to near the bottom plate of the oven *v*, at which point openings 1, 1, are left for the air (heated in its descent) to pass into the oven through which it circulates as shown by the arrows, and passes off to the fire carrying with it any vapors from the articles in the oven, as well

as aiding in the baking operation in consequence of the high heat to which the air is raised by contact with the plate *m*; and the openings 1, 1, being at the bottom of the oven render said oven much more efficacious, than where the hot air is admitted higher up at the front end of the oven and does not come in contact with the bottom of articles placed at the front end of the oven, thus I remedy an evil that has heretofore existed in heating the bottom of articles at this end of the oven.

n, is a plate in the top of the oven connecting with the plate *q*, and forming an air space from the air space 3, between the plates *p* and *q* (which air space 3, has before been used) to the back part of the oven at which the opening 2, is left, so that the air and vapors from the oven pass in at this opening 2, and travel along into the space 3, and thence to the fire: This double top to the oven prevents too great heat striking into the oven, as is usual where only the single plate is applied, particularly in cases where wood or bituminous coals are used, and the oven is more thoroughly ventilated in all parts than would be the case if the plate *n*, were dispensed with.

r, is the grate in the fire box *g* and the plate *p*, terminates above this grate in a series of corrugations or notches at 4, so that the air from the space 3, can enter the fire above this grate, and thereby the air space 3, cannot become obstructed with ashes (as sometimes occurs when said air space is formed in the manner shown in my aforesaid patent), because the air space opens directly into the ash box at its lower edge and is entirely cleaned out when the ashes are removed from said ash box (*s*).

In stoves of this general construction where the fire and ash boxes run across the forward end of the oven, difficulty has heretofore existed in getting rid of the ashes, because if the ash pit were large enough the oven was rendered too small, and if the ash pit were small, the draft soon became obstructed by the accumulation of ashes; beside this said ash box had to be cleaned out at the end, involving the necessity of an ash pan or hearth or oven door, and often ashes fall into the oven itself: To remedy these evils I introduce the ash pipe *t*, running from the ash box *s*, to the front hearth *f*, whereby all ashes are taken away to the hearth *f*, and the box *s*, kept clear and free;

this pipe *t*, is to be as small as will answer the purpose fully and not take too much room in the oven, and is formed flaring at the top to receive the ashes. 5, is a register at the base of this ash pipe *t*, through which air may be admitted for kindling the fire instead of said air having to travel through the oven. This ash tube *t*, may also be used when broiling is being performed on the hearth *f*, in this case I introduce a grate as shown by dotted line 6, on which the fuel is placed; a gridiron occupies the place of the cover to the hearth *f*, and a cover may be introduced as shown by dotted lines 7, and all fumes &c pass away by the register 5. By the use of the ash tube *t*, the dampers and doors at the ends of the fire box are dispensed with; and the grate is less liable to be burnt out from accumulation of ashes.

I am aware that the ashes have been passed from the fire to the front hearth by a space formed between the front doors and the oven plate, therefore I do not claim the same; but it will be evident that when these doors are open for the purpose of roasting, the ashes and dust would in this case enter said roaster, whereas by the use of my closed tube, the ashes are conveyed to the front hearth and the roaster kept free from dust

and dirt; hence my said ash tube is different from the devices heretofore used and performs new and useful functions.

Having thus described my said invention what I claim and desire to secure by Letters Patent is

1. The ash tube *t*, passing from the box *s*, to the hearth *f*, through the oven, or behind the front plate or doors, substantially as specified, whereby I am enabled to confine the ashes and prevent them entering either the oven, or roaster placed on said hearth *f*, as set forth.

2. I claim the arrangement of the openings 1, 1, into the oven on each side of the ash tube *t*, in the manner and for the purposes set forth.

3. I claim admitting air to the fire from the space 3, by the opening (4,) between the lower end of the plate *p*, and the grate *r*, as and for the purposes specified.

In witness whereof I have hereunto set my signature this twenty-sixth day of January, 1860.

J. C. HENDERSON.

Witnesses:

LEMUEL W. SERRELL,
CHAS. H. SMITH.