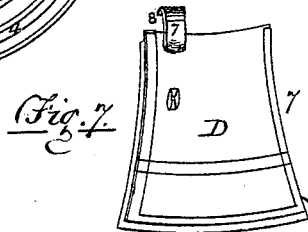
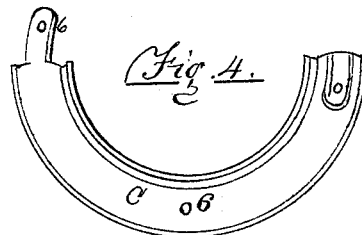
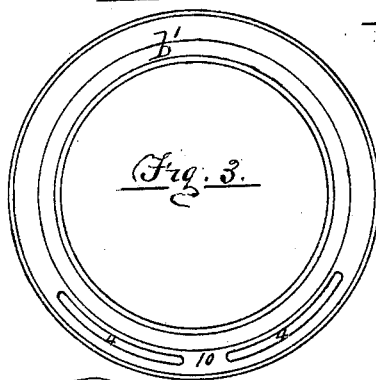
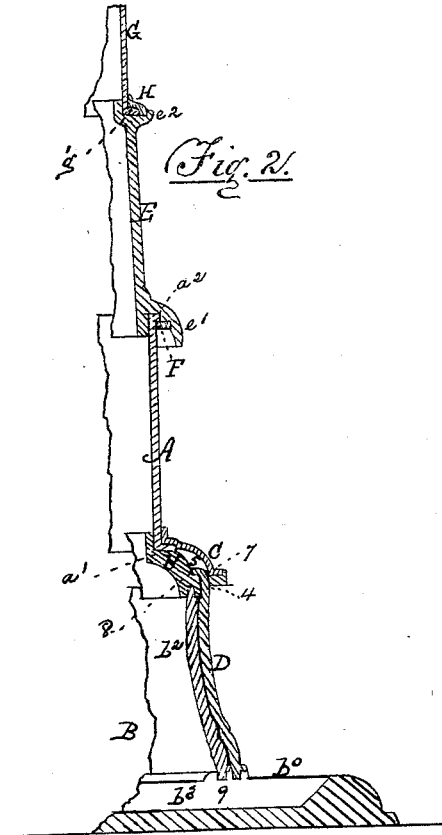


## Improvement in Heating-Stoves.

Patented May 9, 1871.



Witnesses:  
Benjamin  
Wm. A. Morrison.

Inventor:  
Samuel Smith

# United States Patent Office.

SAMUEL SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
CHARLES NOBLE & CO., OF SAME PLACE.

Letters Patent No. 114,614, dated May 9, 1871.

## IMPROVEMENT IN HEATING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

I, SAMUEL SMITH, of the city of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Stoves, of which the following is a specification.

### *Nature and Objects of the Invention.*

The first part of my invention relates to the mode of adjustably attaching together the different sections of a cylindrical illuminating-stove, and consists in the combination therewith of respective diametrically-divided clamping-rings or moldings; the object of this part of my invention being to afford increased facility in attaching and detaching the several parts, as occasion may require.

The second part of my invention relates to the attachment and support of the usual horizontally-sliding doors of the ash-pit of a stove in such a manner that while the said doors can at any time be readily slid into abutting contact with each other to close the mouth of the ash-pit, or separated to open it, they will be prevented from becoming displaced in use and from falling down into the ash-pit whenever the usual hearth-plate cover of the said ash-pit is removed.

### *Description of the Accompanying Drawing.*

Figure 1 is a perspective view of a cylindrical stove, a part of the upper section being broken off, embodying my invention.

Figure 2 is a vertical section of one side of the same stove through one of the ash-pit doors.

Figure 3 is a plan view of the ring-plate for supporting the usual grate, fire-cylinder, and the body of the stove above the ash-pit.

Figures 4 and 5 are, respectively, plan views of the halves of two of the divided clamping-rings or moldings.

Figures 6 and 7 are edge and front views, respectively, of the right-hand sliding door of the ash-pit.

### *General Description.*

The body, cylinder A, is of sheet-iron, and has a flange,  $a^1$ , projecting around on the outside of its lower end which rests directly upon a corresponding elevated part of the upper surface of the cast-iron ring-plate  $b^1$  of the cast-iron base B.

The plate  $b^1$  fits down upon the upper edge of the side wall-plate  $b^2$  of the said base, and projects horizontally around, over, and beyond the same.

Through, and concentric with, that portion of the plate  $b^1$  which projects around over the mouth of the ash-pit  $b^3$ , there are two long slots, 4 4, the object of which will be hereinafter stated.

The diametrically-divided cast-iron annular molding C C, when applied with its inner edge down upon the

flange  $a^1$  of the body A, and its outer edge upon the outer rim of the top plate  $b^1$ , and secured to the latter by suitable screws through the holes 6 6, clamps and holds the said body and the top plate  $b^1$  of the base B firmly together, and at the same time leaves a special annular space, 5, (see fig. 2,) around between the said molding C and the plate  $b^1$ , for a purpose which will hereinafter be explained.

The object in dividing the said molding is for the purpose of allowing it to be applied with facility, because if it were not divided it could not be placed around, or taken off from, the body of a stove having the usual necessary flanges formed or otherwise fixed thereon.

The sliding doors D D are of cast-iron, and have each a lip, 7, projecting upward from near abutting edges thereof, through the slots 4 4, respectively.

The inner side of the upper end of each of said lips 7 has a projection, 8, (see fig. 6,) which catches over the upper side of the flat part of the plate  $b^1$ , (see figs. 1 and 2,) and thus prevents the door from dropping down into the ash-pit  $b^3$  when the hearth-plate cover of the said pit is absent, as shown in fig. 1, and at the same time allows the door to slide right and left; the inner surface of the door sliding over the outer surface of the wall-plate  $b^2$  and the upper end of the lip passing freely in the space 5, (see fig. 2,) while the lower edge of the said door runs in a groove, 9, in the bottom plate  $b^0$  of the base B, and is prevented from passing entirely out of said groove by the said lip 7 coming in contact with the partition 10, which is between the two slots 4 4 in the plate  $b^1$ . (See figs. 1 and 3.)

It will be seen, therefore, that the doors D D can be readily slid apart to open the ash-pit, and abutted together to close it, as occasion may require, without any liability to disarrangement or to falling into the ash-pit when the hearth-plate cover of the latter is absent.

The illuminating-chamber E is of cast-iron and has a projecting molding,  $e^1$ , cast upon its lower end, which fits around over a flange,  $a^2$ , that projects horizontally around from the upper end of the sheet-iron body A.

The chamber E and body A are attached together by means of a diametrically-divided ring, F, the halves of which are applied around under the flange  $a^2$  and secured together, and to the lower end of the chamber E, by any suitable screws passing through the ring F into E, thus clamping them together, and affording every facility that may be desired for attaching and detaching the parts, as occasion may require.

The upper end of the said illuminating-chamber E has a grooved flange,  $e^2$ , cast around it, which receives a flange,  $g^1$ , on the lower end of the upper sheet-iron

cylinder G, and the two parts are adjustably secured together by a diametrically-divided cast-iron clamping-ring or molding, H, the halves of which are formed, applied, and secured together and to the chamber E by means of suitable screws, substantially in the manner described, for applying the ring C to secure the cylinder A and base B together.

*Claims.*

I claim as my invention--

1. The divided annular molding C C, in combination with the flange  $a^1$  of the body A and the annular plate  $b^1$  of the base B, substantially as and for the purpose hereinbefore set forth.

2. The divided clamping-ring F F, in combination with the flange  $a^2$  of the body A and the lower end of

the illuminating-chamber E, substantially as and for the purpose hereinbefore set forth.

3. The divided annular molding H, in combination with the upper end of the illuminating-chamber E and the flange  $g'$  of the upper cylinder G, substantially as and for the purpose hereinbefore set forth.

4. In combination with the base B of a stove the sliding doors D D having the respective lips 7 7, the slots 4 4 in the top plate  $b^1$ , and the groove 9 in the bottom plate  $b^2$ , all constructed and arranged to operate substantially as and for the purpose hereinbefore set forth and described.

SAMUEL SMITH.

Witnesses:

BENJ. MORISON,  
WM. H. MORISON.