

E. H. LORD & B. D. EVANS.
 Portable Furnace.

No. 164,312.

Patented June 8, 1875.

Fig. 1.

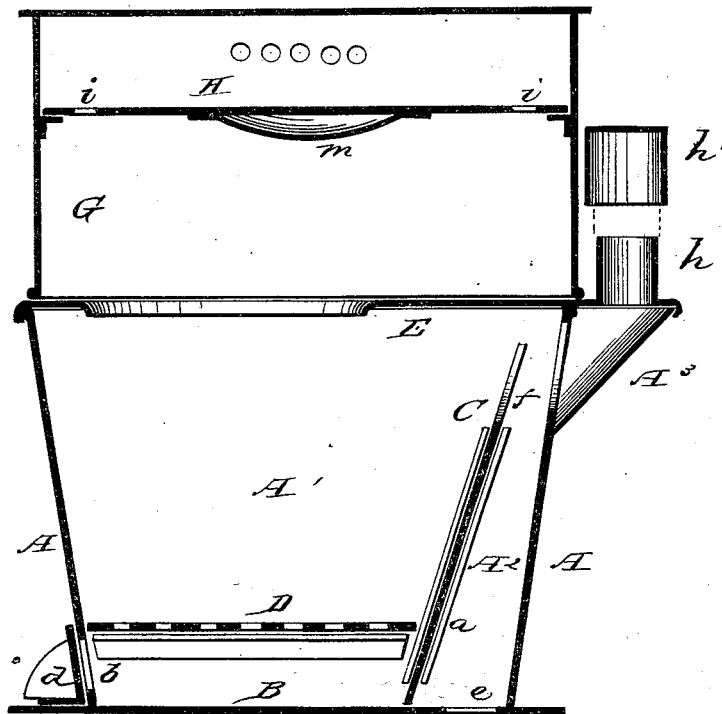
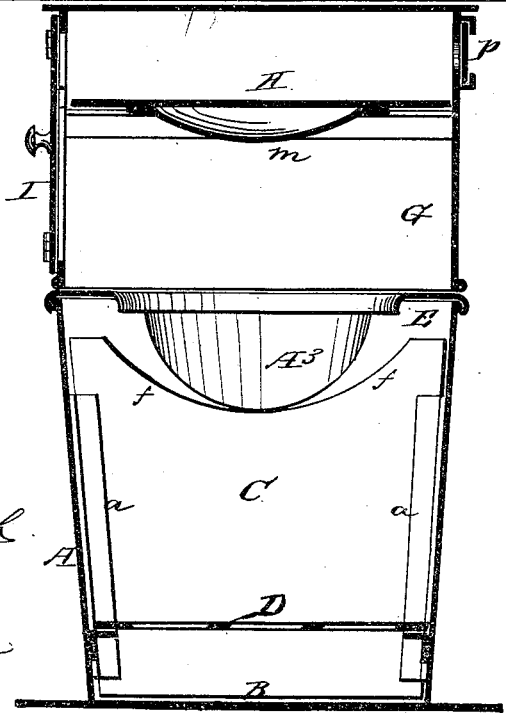


Fig. 2.



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IMPROVEMENT IN PORTABLE FURNACES.

Specification forming part of Letters Patent No. **164,312**, dated June 8, 1875; application filed May 19, 1875.

To all whom it may concern:

Be it known that we, E. H. LORD and B. D. EVANS, of Petersburg, in the county of Dinwiddie and State of Virginia, have invented certain new and useful Improvements in Combined Stoves, Furnaces, and Bakers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which forms part of this specification.

The nature of my invention consists in the construction and arrangement of a portable furnace or stove, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal vertical section, and Fig. 2 a transverse vertical section, of our stove or furnace.

A represents the shell of our furnace or stove, having a flat bottom, B, extended beyond the sides of the stove, as shown. The stove A is, by means of an inclined fire-back, C, divided into the fire-chamber A¹ and flue A², as shown in Fig. 1. The fire-back C is placed in guides *a a* in the sides of the furnace, and is movable up and down. In the fire-chamber A¹ is the grate D, and below said grate, in the front of the furnace, is a draft-opening, *b*, closed by means of a slide or damper, *d*. In the upper edge of the fire-back C is an opening, *f*, and in the bottom B is an opening, *e*, communicating with the flue A². At the top of the flue A², in the rear of the stove, is an extension, A³, having on top an ordinary stove-pipe collar, *h*, with a cap, *h'*, for closely covering the same. E is the top plate of the stove, formed with one or more ordinary stove-holes.

This stove may be used on top of an ordinary cooking-stove, when the opening *e* in the bottom of the flue A² should be placed over one or more of the openings in the cooking-stove. The fire is then built on the grate D, and the smoke, &c., passes over the top of the fire-back C, down the flue A², into the cooking-stove, and from thence to the chimney.

In this case the cap *h'* should be placed over the collar *h*.

If strong draft is desired, the fire-back C may be raised to allow the smoke to pass directly from the fire, below the fire-back, and out, as before. The fire-back, being movable, can easily be taken out when burned out, and a new one put in.

The stove may be used by itself, when the opening *e* in the bottom will be closed, the cap *h'* removed, and the collar *h* connected with the stove-pipe.

In connection with this stove I use an oven, consisting simply of an open-bottomed case, G, provided with an interior shelf, H, and covering the entire top surface of the stove. The shelf H is provided with perforations *i* near the edges, and on its under side it has a convex surface, *m*, against which the heat strikes, and is deflected in all directions to the sides of the oven. In the front of the oven is a door, I, and at the back is a damper, *p*, for regulating the heat therein.

This stove and oven may be manufactured very cheaply, and may be used everywhere and under almost any circumstances.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The stove or furnace A, provided with the movable fire-back C, forming a partition to divide it into the fire-chamber A¹ and flue A², substantially as and for the purposes herein set forth.

2. The combination of the stove A, movable fire-back C, grate D, extension A³, and collar *h* with cap *h'* and the openings *b e*, substantially as and for the purposes herein set forth.

3. The combination, with a portable stove or furnace, A, of the oven G, shelf H, having perforations *i* and convex surface *m*, the door I, and damper *p*, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

ELI H. LORD.
BARNABAS D. EVANS.

Witnesses:
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