Ezekiel Phillips' Apparatus for heating sad irons, etc.

105245 **PATENTED JUL 12 1870**

Fig. 1.

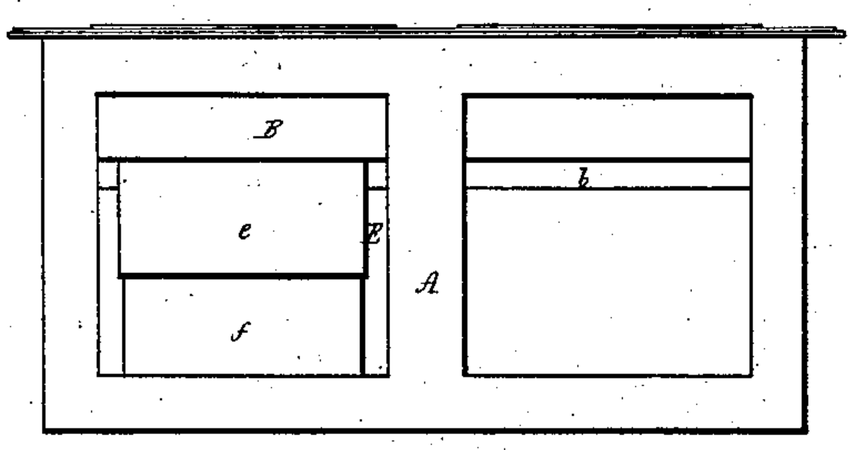


Fig. 2.

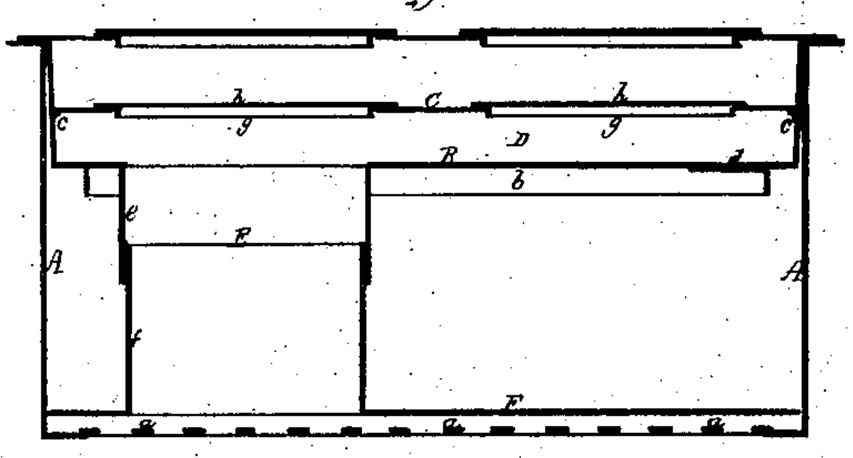
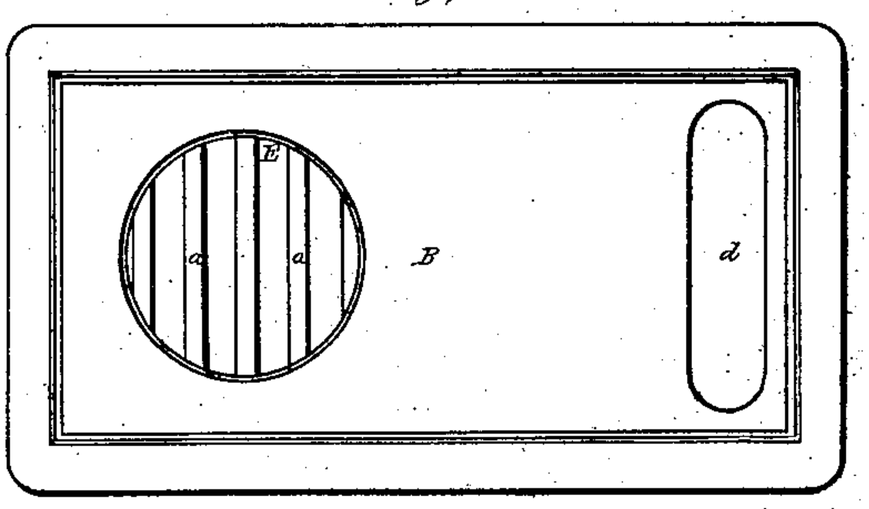


Fig. 3.



Witnesses.

S. A. Piper

J. R. Snow

E. Phillips.

by his attorney

R. H. Eddy

United States Patent Office.

EZEKIEL PHILLIPS, OF BLACKSTONE, MASSACHUSETTS.

Letters Patent No. 105,245, *dated July* 12, 1870.

SAD-IRON HEATER.

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

To all persons to whom these presents may come:

Be it known that I, EZEKIEL PHILLIPS, of Blackstone, of the county of Worcester and State of Massachusetts, have invented a new and useful Apparatus for Heating Sad-Irons, or for various other useful purposes; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a side elevation of the apparatus, while

Figure 2 is a longitudinal section of it as applied to the fire-place of a cooking-range or stove.

Figure 3 is a top view of the apparatus as it appears without its perforated movable flue-plate.

The invention is intended to be employed within the furnace or fire-place of a common cooking-range or stove, and is particularly designed for the heating of flat-irons or culinary vessels, as occasion may require.

In the drawing—

A is to be supposed to represent such a furnace or fire-place, of which

a a a denote the grate, and

b, the discharge-flue.

The upper portion of the apparatus is an elongated trough, B, formed to fit into the upper part of the fire-place, and provided with a ledge or projection, *c*, extending around within it, for receiving and supporting a plate, C, so as to form a flue-space, D, between such plate and the bottom of the trough.

Near one end of it the said bottom has a hole or passage, *d*, made through it, and from the opposite end or part of the bottom a tube, E, projects downward to and is joined to a rectangular plate, F, the tube opening both through the plate and the bottom of the trough.

For convenience of construction and transportation, I prefer to construct the tube E in two separate parts or tubular sections, *e f*, one being extended upward from the plate F, and the other downward from the bottom of the trough, and one being formed so as to enter the other a short distance, and fit to it, the same being as represented in fig. 2.

The plate F is designed to cover all the grate except such part of it which may be directly beneath and encompassed by the said tube E, which is intended for a fire-pot or to hold fuel, when the apparatus is placed in and is in use within the range or cooking-stove fire-place.

The flue-plate C may have holes, *g g*, made through it, and such holes may be provided with covers, *h h*; the said holes when the covers are off them being for the reception of culinary vessels.

So, in case it may be desirable to have an extra flue-plate, one to fit to and cover the top of the trough B, may be used in the place of the flue-plate C, and the additional plate, like the plate C, may have one or more holes provided with covers.

To use the apparatus for heating flat-irons or culinary vessels, it should first be placed within the fire-place, so that the plate F may rest on the grate thereof, in which case the tube E, with that portion of the grate encompassed by it, will constitue a lesser fire-place or pot for reception of fuel.

The said lesser fire-place having been charged with a proper amount of fuel, and it being set fire to, the smoke and gases from the charge will flow against and along the lower surface of the flue-plate and through the trough, and escape therefrom through the hole or passage *d* of its bottom, from whence they will pass into the main fire-place and be discharged by its eduction-flue. In coursing through the trough the smoke and hot gaseous products of combustion will heat the flue-plate so as to heat any flat-irons or vessels which may be resting thereon, or any pots or kettles placed within the holes of the said plate.

In summer, when a fire smaller than is needed in winter becomes desirable, the apparatus affords a means of obtaining such, as will readily be understood from what has been hereinbefore described or stated.

I claim—

The arrangement and combination of the base-plate F, the tube E, and the trough B provided with the opening *d*.

Also, the combination of the base-plate F, the tube E, the perforated trough B, and the flue-plate C, the whole being constructed substantially in manner and for use, as and for the purposes as set forth.

Also, the combination and arrangement of the perforated trough B, the tube E, and the plate F, or such and the flue-plate C, with the fire-place of a cooking-range or stove, as explained.

E. PHILLIPS.

Witnesses:

T. S. JOHNSON,

GEORGE B. JONES.