

J. M. ATKINSON.
FIRE-PLACE HEATER.

No. 170,801.

Patented Dec. 7, 1875.

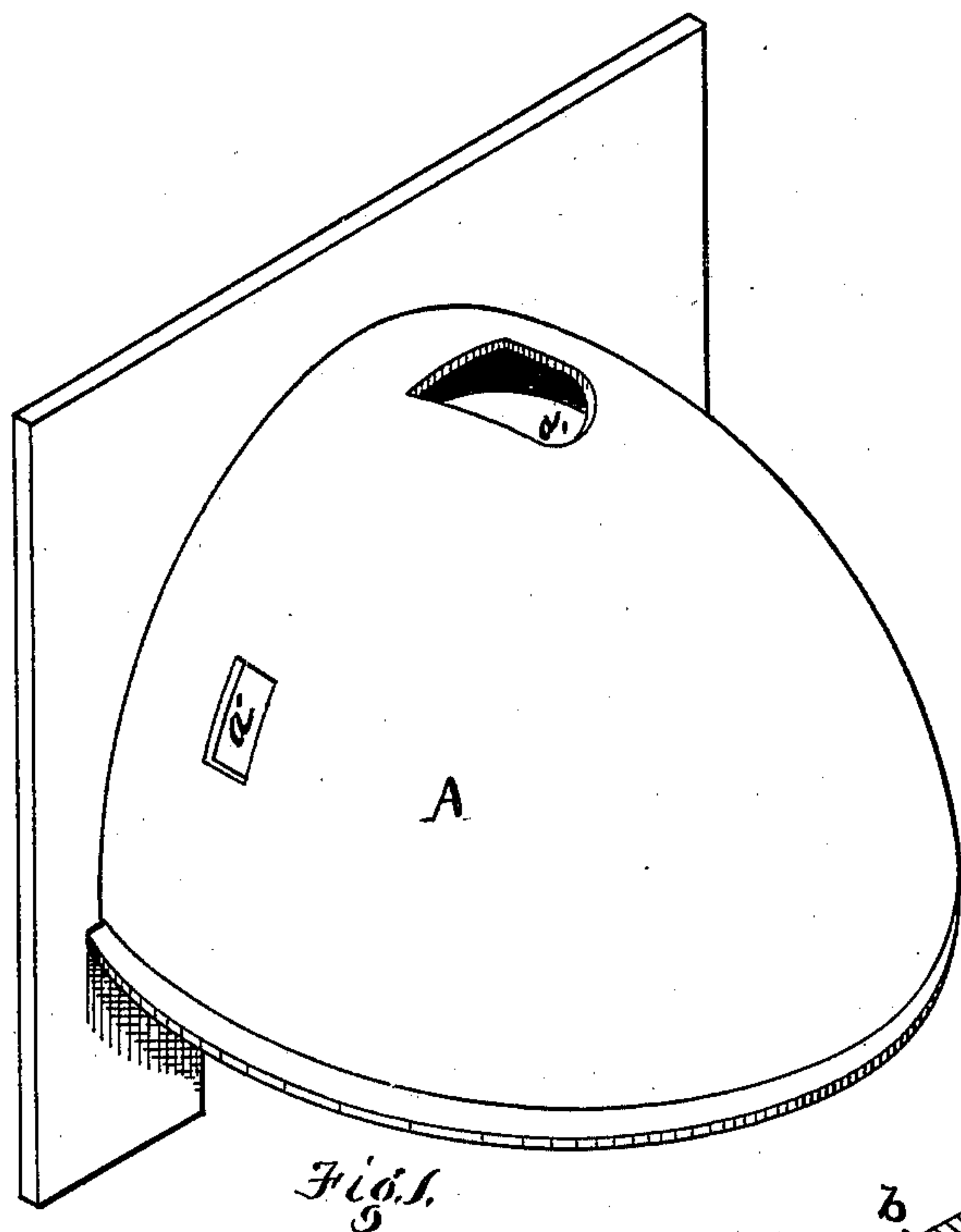


Fig. 1.

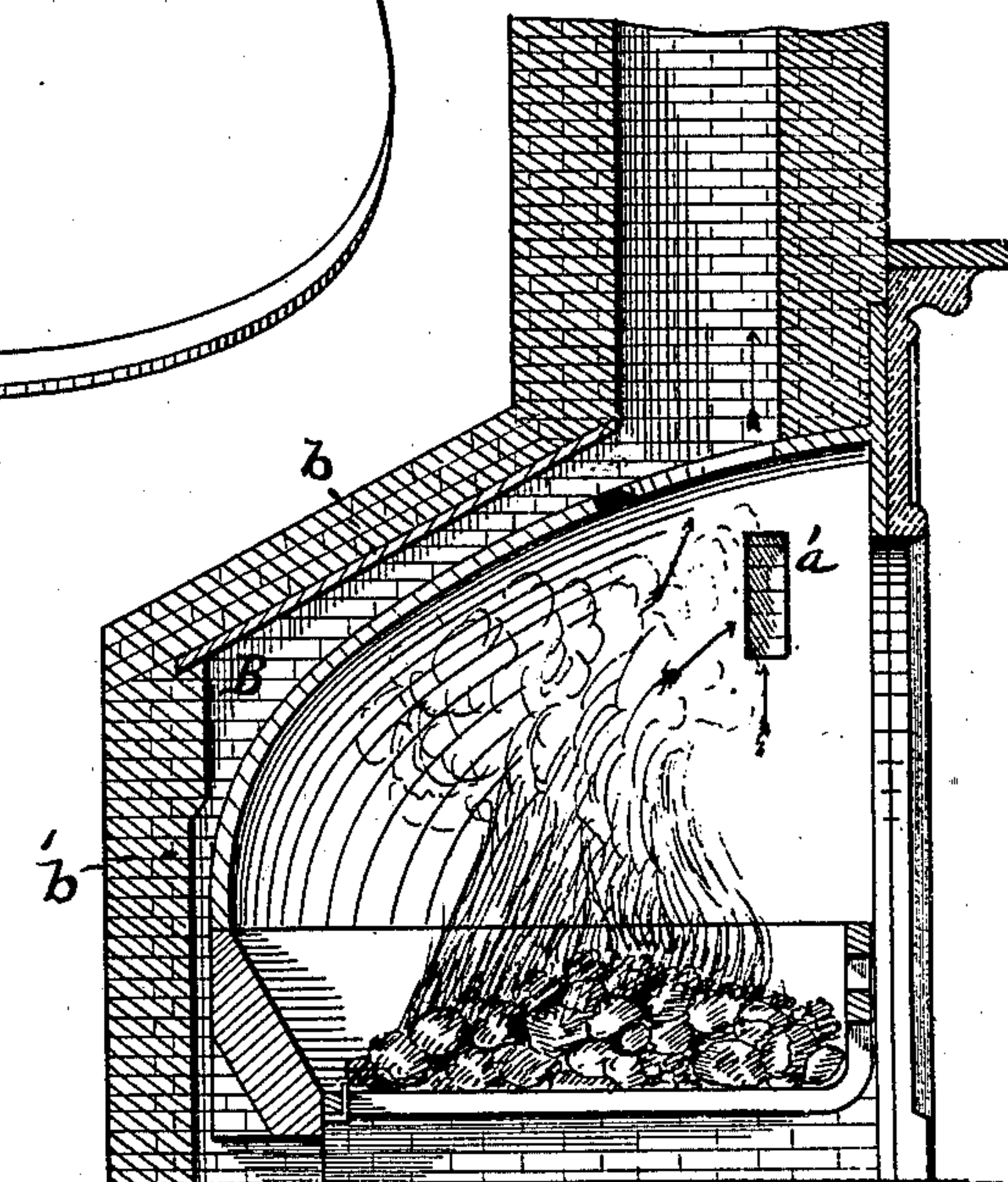


Fig. 2.

WITNESSES.

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IMPROVEMENT IN FIRE-PLACE HEATERS.

Specification forming part of Letters Patent No. **170,801**, dated December 7, 1875; application filed November 1, 1875.

To all whom it may concern:

Be it known that I, JAMES M. ATKINSON, of Pittsburg, Pennsylvania, have made a new and useful Improvement in the Construction of Fire-Places, of which the following is a correct description, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of a sectional spheroidal-shaped oven; and Fig. 2 is a sectional view of said oven arranged within a fire-place, the several parts thereof being constructed and arranged in accordance with my invention, as will be hereinafter more fully specified and claimed.

My invention relates to that class of fire-places in which it is designed to consume, as far as practicable, the products of combustion; and it consists in the hereinafter-specified combination of a sectional spheroidal-shaped oven, draft-apertures, and fire-place having vertical and sloping walls, with a draft-passage between said walls and said oven, substantially as shown and described, whereby combustion is accelerated and the products thereof prevented from escaping, and consumed in an effectual and economical manner.

Referring to the drawing, A represents the sectional spheroidal-shaped oven, provided with draft-apertures *a a' a'*, located, respect-

ively, at the top and sides thereof, whereby, during the process of combustion, counter-currents of air are produced, as indicated by the arrows in Fig. 2, in which said oven is fitted within a fire-place having a vertical wall, *b'*, and a sloping upper wall, *b*, which extends from wall *b'* to the chimney or flue. By reason of this arrangement a draft-passage, B, is left around the oven A, into which passage the draft-apertures *a'* are especially designed to open. The oven is fitted over an ordinary grate and connected with the fire-place in convenient manner.

I am aware that various forms of fire-places have been constructed with a view to the consumption of smoke, &c., and also that deflectors are in some instances employed with a view to increase heat; but

What I claim as my invention is—

The herein-described combination of sectional spheroidal-shaped oven A, draft-apertures *a a' a'*, located at the top and sides, as specified, draft-passage B, extending entirely around said oven, and fire-place, having sloping and vertical walls *b' b'*, substantially as shown and specified.

JAMES M. ATKINSON.

Witnesses:

C. B. BOSTWICK,
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