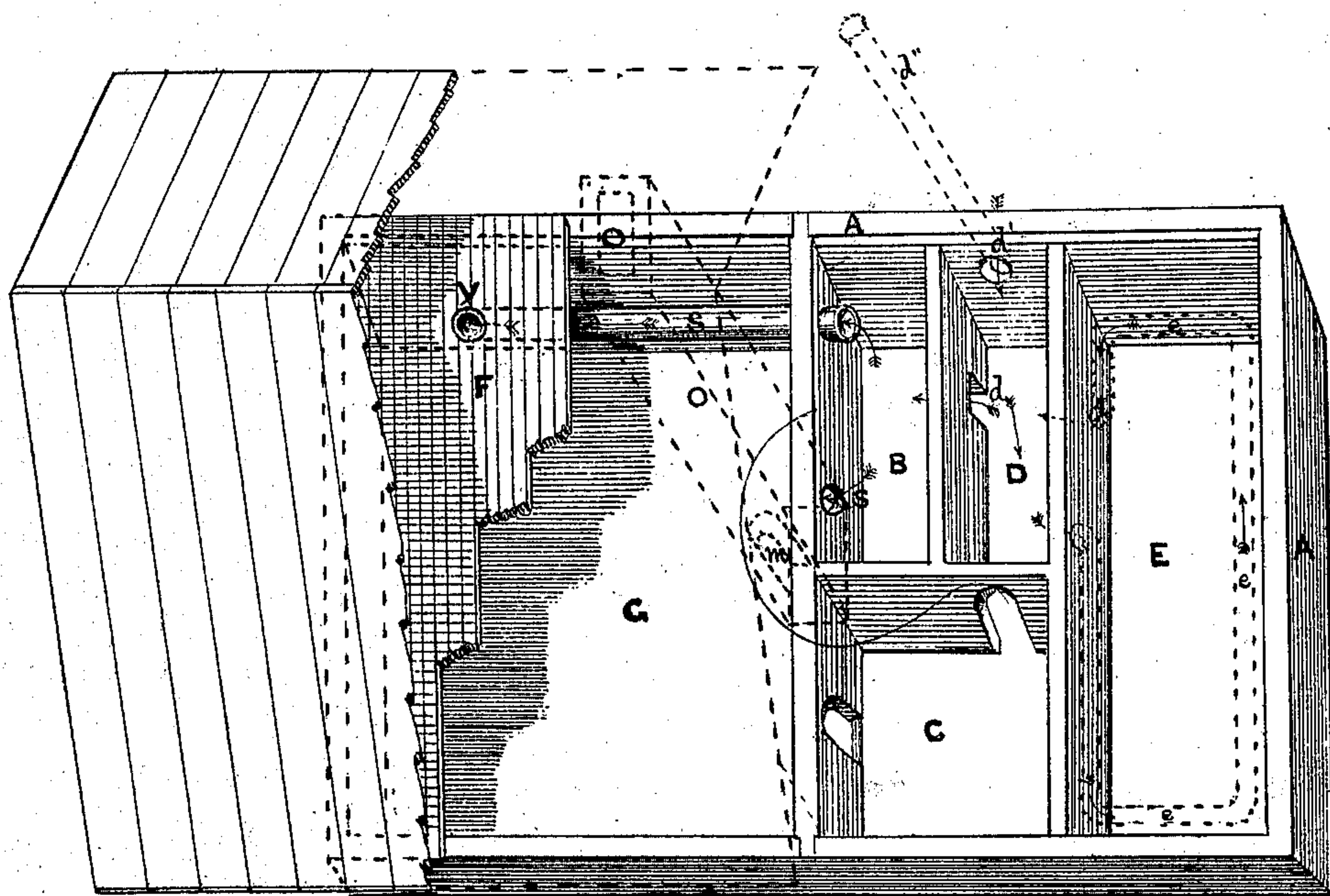


W. E. Phelps,

Ventilator.

No. 100797.

Patented Mar. 15. 1870.



Witnesses

H. A. Daniel,

J. H. Mester

W. E. Phelps
by A. M. Ballou
Atty.

United States Patent Office.

W. E. PHELPS, OF ELMWOOD, ILLINOIS.

Letters Patent No. 100,797, dated March 15, 1870.

VENTILATOR.

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

To all whom it may concern:

Be it known that I, W. E. PHELPS, of Elmwood, in the county of Peoria, and State of Illinois, have invented a new and useful Method of Summer Ventilation for Buildings, &c., of which the following is a specification.

The nature and object of my invention consist in providing an economical method for reducing the temperature of the air in the rooms of buildings during the summer months.

The accompanying drawing represents an isometrical view of a house, the roof and flooring being cut away to expose the arrangement of the cellar or foundation.

A represents the walls of the foundation.

B, the ordinary furnace-room for heating the building during cold weather.

C is a room for fuel, &c.

E is a chamber containing ice, water, or other air-cooler, through or around which may be conducted an air-tube or duct, as shown by the dotted line, *e*, in the drawing, communicating with air-chamber D, into which the melted ice drains under the partition.

The outer wall of chamber D is pierced near to the ceiling, with a hole, *d'*, communicating with the outer air, and in which may be fitted an air-tube, *d''*, leading to the top of the house, furnished with the necessary appliances to induce a downward draught of air. It also communicates with chamber B by a hole or passage, *d*, at the floor.

G is another chamber of the cellar, in which is a fire-place, *m'*, communicating with a chimney or duct, O.

F is the flooring of the upper chambers of the house. S, the air-pipes leading from furnace-chamber B, and communicating with the upper chambers by registers V.

Air is admitted into chamber D through hole *d'* or the air-tube fitted thereon, as described, and is cooled either by passing over the ice-water in the bottom of the chamber, or by passing through or around the air-tube *e'* in chamber E, and having thus become cooled, it passes into chamber B through the aperture in the partition between chambers B and D, and finds its way into either of the furnace pipes or flues, S, and thence by registers V into the rooms.

When desirable, the draught may be increased by making a fire in fire-place *m'*, which will induce a more rapid circulation of the cooled air.

I claim—

1. The arrangement of ice or other air-cooling chamber, E, with or without air-pipe *e*, and draining into air-chamber D, air-chamber D having air-passages *d d' d''*, pipes S, and registers V, of an ordinary heating-furnace, the whole combined to operate substantially as and for the purpose specified.

2. The arrangement of fire-place *m* and flue or duct O, in combination with air-chamber D, cooling-chamber E, as described, pipes S, and registers V, substantially as and for the purpose specified.

W. E. PHELPS.

Witnesses:

JOHN A. REICHARD,
J. B. HARSH.