

(No Model.)

J. A. B. KING.

DEVICE FOR COOLING DWELLINGS.

No. 253,535.

Patented Feb. 14, 1882.

Fig. 1.

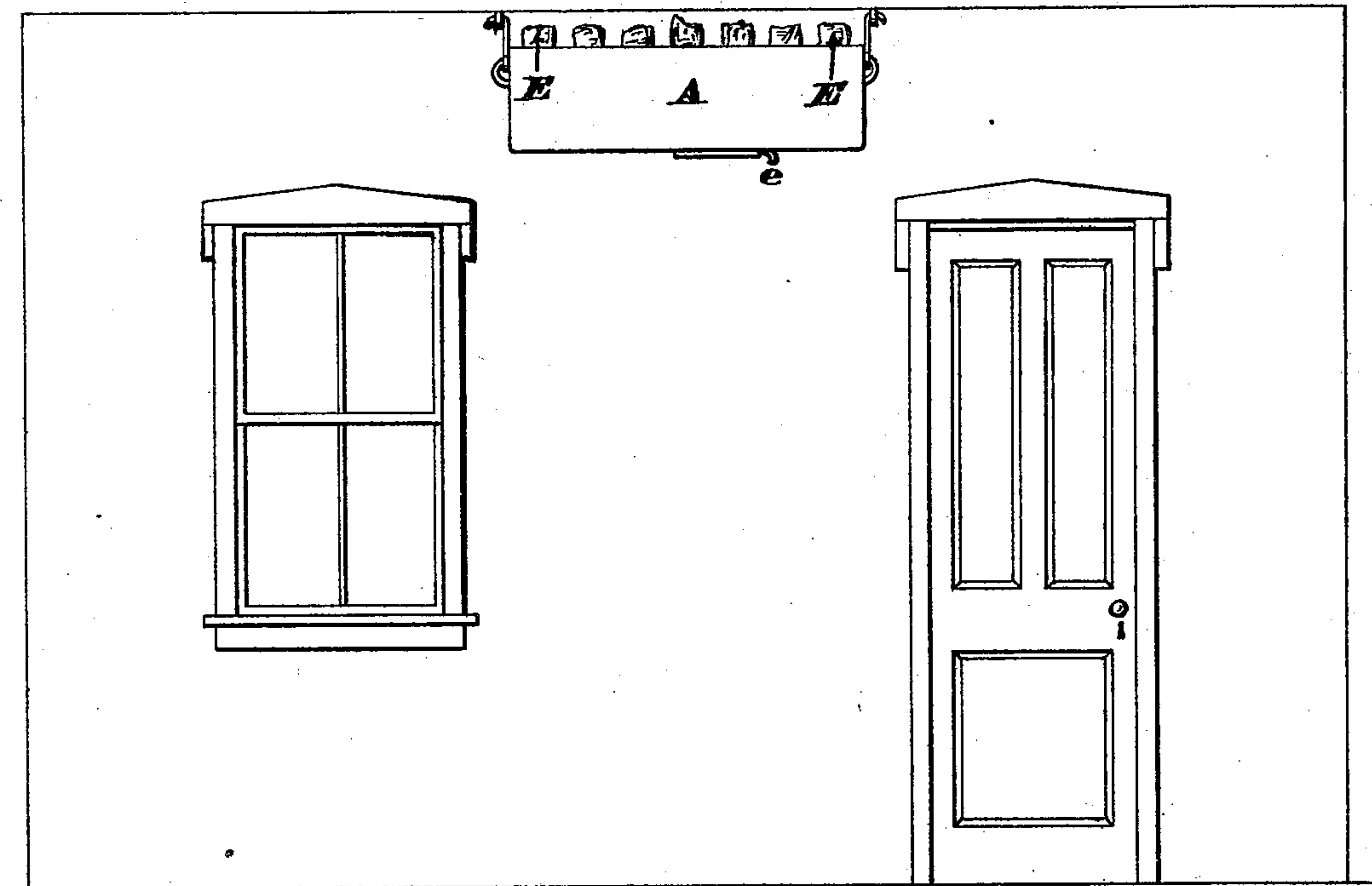
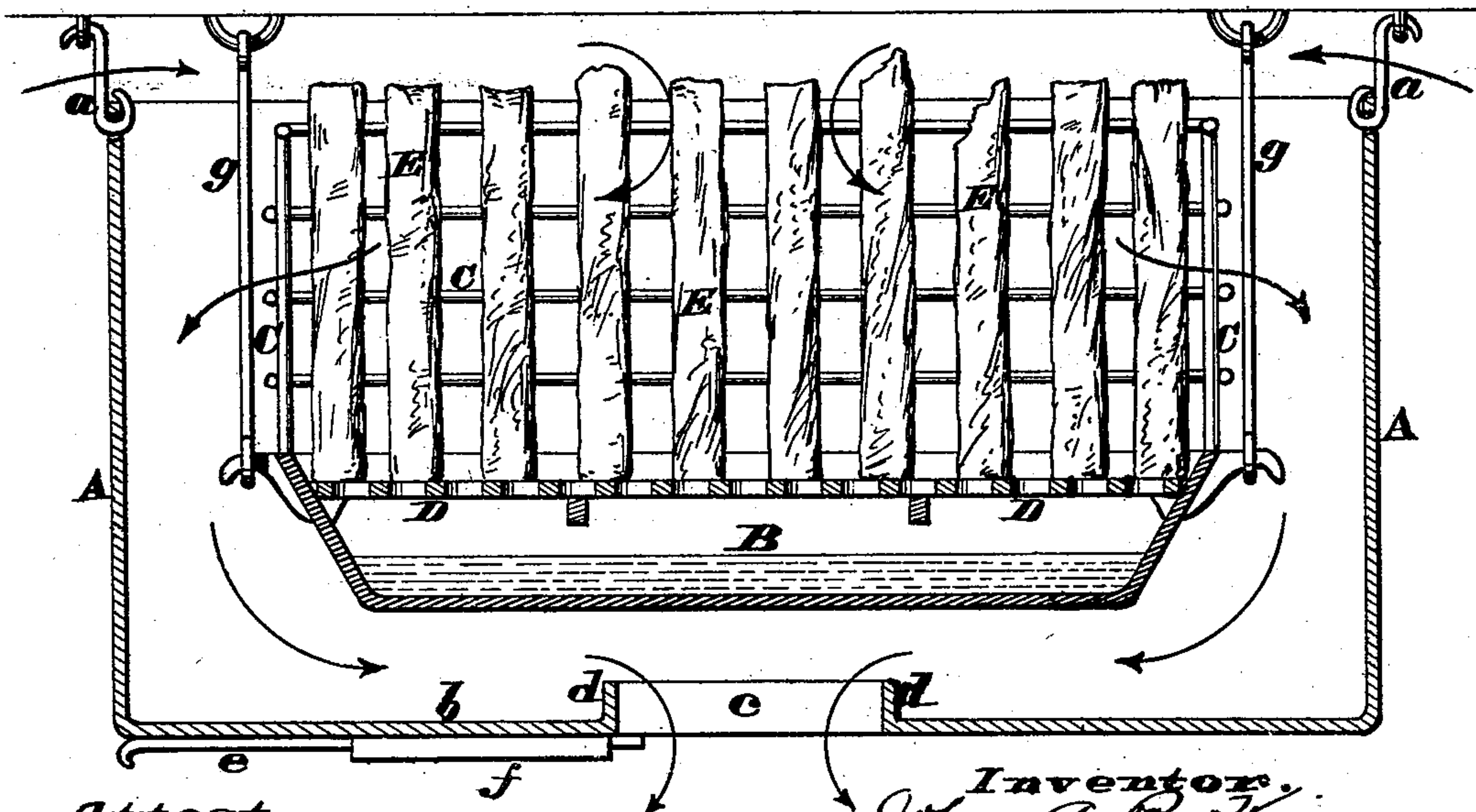


Fig. 2.



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DEVICE FOR COOLING DWELLINGS.

SPECIFICATION forming part of Letters Patent No. 253,535, dated February 14, 1882.

Application filed August 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. B. KING, a citizen of the United States, residing in Cincinnati, Hamilton county, and State of Ohio, have
5 invented a new and useful Improvement in Devices for Cooling Dwellings, of which the following is a specification.

My invention relates to an improved device
10 for cooling the rooms of dwellings in hot weather.

It consists in suspending a box or vessel suitably constructed and containing ice to the ceiling or walls of a room, the doors and windows of which are preferably closed, whereby
15 the ascending heated air is brought in contact with the ice, is cooled, and descends by its gravity, thus keeping up a constant circulation and materially reducing the temperature of the room. The novelty consists in the construction and arrangement of the parts com-
20 posing my device, as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 represents my improved cooling device as ap-
25 plied to a room. Fig. 2 is an enlarged central sectional view, in side elevation, of my improved cooling device.

A represents any suitable metallic box or case open at the top, and suspended by hooks
30 or chains *a*, or in any other suitable manner, close to the ceiling. In the bottom *b* of this case is an opening, *c*, having its inner edge preferably turned up to form a flange, *d*, as seen in Fig. 2. A door or slide, *e*, suitably
35 held in guides *f*, is adapted to slide over the opening and either close it entirely or open it to any desired extent. Instead of this slide, any ordinary register provided with cords for operating it from below may be employed.

40 Within the case A is suspended, either from the ceiling by links *g*, as in Fig. 2, or by supports in the case, a pan, B, surrounded by a rack or pen, C, composed of slats or bars, as seen in Fig. 2. Near the top of the pan is a
45 perforated bottom, D, on which is placed the ice E. The ice may be compact, or it may be in slabs set up on end, as shown in Fig. 2, with space between to permit the air to circulate and come in contact with a larger surface of ice.

I do not wish to be limited to the manner
50 of suspending the device, nor in its precise construction, for its shape may be varied, and it may be ornamented in a variety of ways to prevent its being unsightly. Where it is suspended as shown in the drawings one or more
55 of the sides of the outer box and of the rack should be hinged, so as to let down or open in order to introduce and replenish the ice.

It will be readily understood that the heated
60 air near the ceiling, coming in contact with the ice, will be cooled and will pass out through the opening in the bottom of the case, and thus keep up a circulation which will very materially reduce the temperature of the room. The cooling action of the device may be regulated
65 by the door or register *e*, and by entirely closing the opening the cooling is prevented. The water from the melting of the ice is caught in the pan B, which is sufficiently large to hold
70 all the water from the melting of one charge of ice, and this water may be drawn off by a siphon, or otherwise. By means of the flange *d* the outer case is made to retain any drippings of condensation from the pan B and prevent
75 their falling into the room.

By this simple means a very efficient cooling
80 device for rooms in hot weather is provided without the use or necessity of blast-fans or other complicated means of creating a current of air.

Having thus fully described my invention, I
claim—

The combination of the ice-rack C, suspended
85 from the ceiling by the links *g g*, and open for the free circulation of air around the ice contained in it, and having the grated bottom D and drip-pan B, with the outer case, A, also suspended from the ceiling by the hooks *a a*,
90 and inclosing the sides and bottom of the ice-rack, so as to leave an air-space between the two, and having the valve *e* at its bottom for controlling the size of its cold-air exit-opening *c*, the whole constructed and arranged for operation substantially as described.

JOHN A. B. KING.

Witnesses:

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JERE. F. TWOHIG.