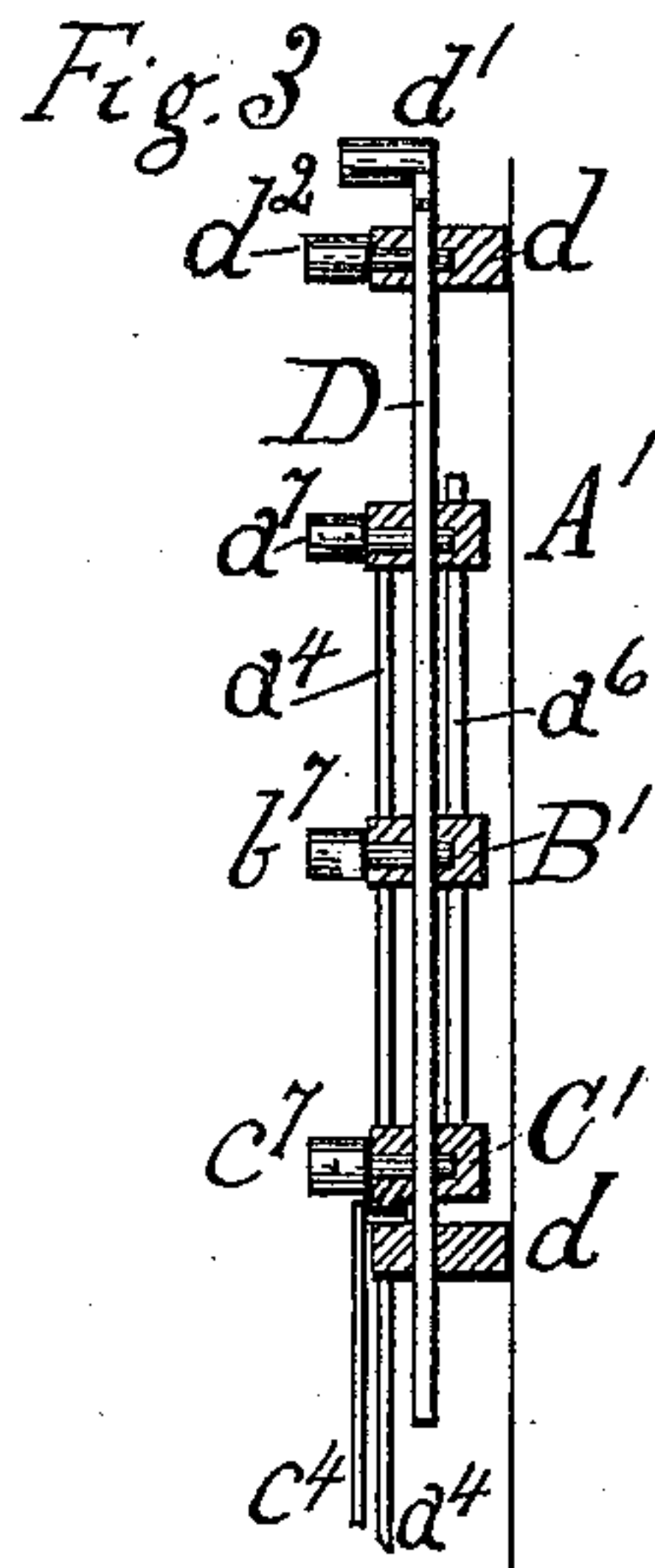
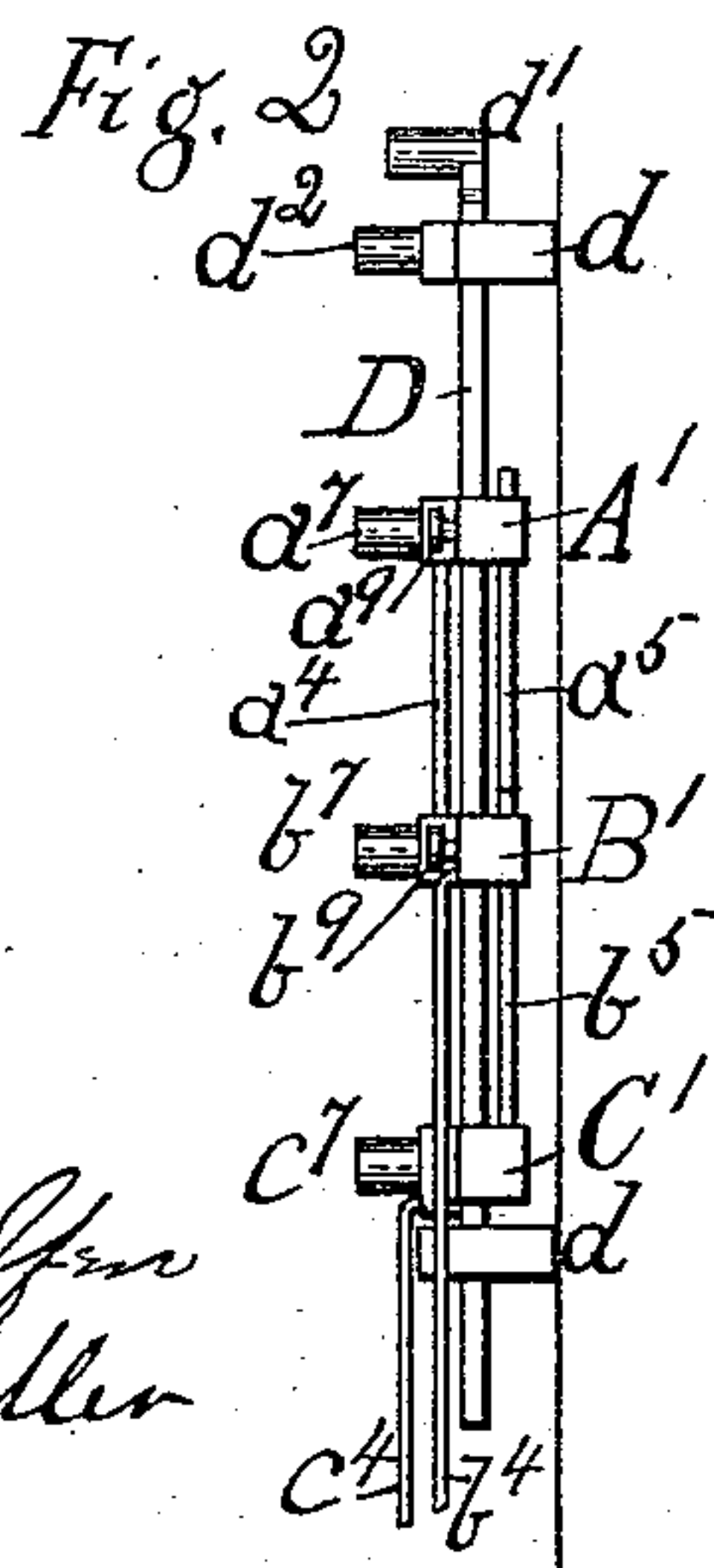
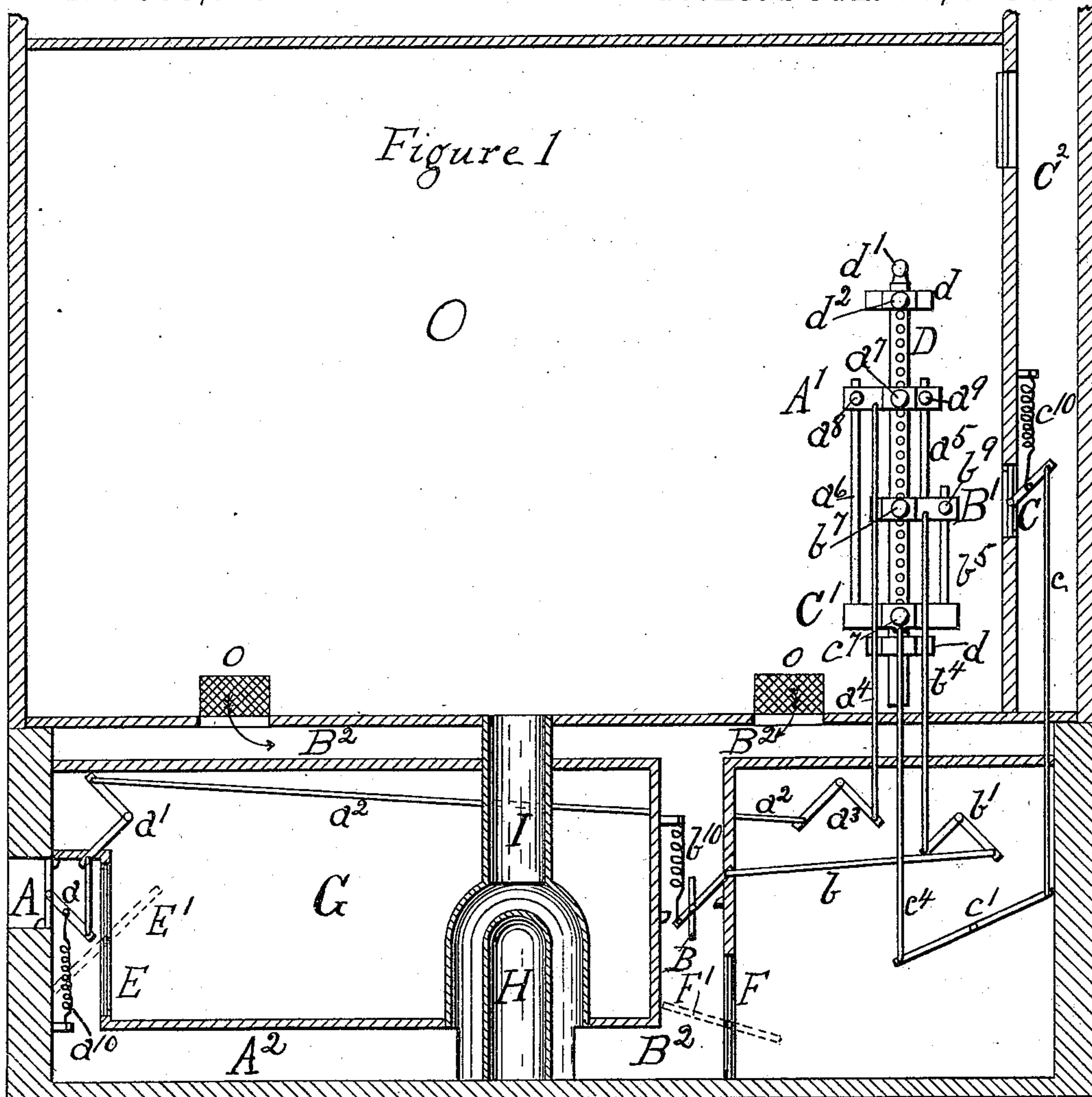


(No Model.)

M. H. COOLEY.  
APPARATUS FOR WARMING AND VENTILATING.

No. 553,670.

Patented Jan. 28, 1896.



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Atty



# UNITED STATES PATENT OFFICE.

MILTON H. COOLEY, OF BROCKPORT, NEW YORK.

## APPARATUS FOR WARMING AND VENTILATING.

SPECIFICATION forming part of Letters Patent No. 553,670, dated January 28, 1896.

Application filed April 18, 1893. Serial No. 470,892. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON H. COOLEY, a citizen of the United States, residing at Brockport, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Apparatus for Warming and Ventilating, of which the following is a specification.

The object of my invention is to provide means for facilitating the control of the air-currents supplied to a room or building for purposes of warming or ventilating or cooling.

Figure 1 of the accompanying drawings shows my apparatus applied to system of warming and ventilating applied to a single room; but any desired number of rooms may be supplied with the same system and apparatus. Fig. 2 shows my valve-controlling mechanism in right-hand side view, while Fig. 3 shows the same in a vertical central transverse section with all parts to the right of the center line removed, except that bar D is shown in full to avoid confusion.

Such a room is shown in vertical section in the drawings, in which O is the room to be heated and H the heater therefor, supplying heated air to such room through the pipe I, which may be supplied with a register in the usual manner. To such heater H, located in the basement G underneath room O, there is supplied cold air from outside of such room through cold-air flue A<sup>2</sup>, having the valve A therein, and also cool air coming from the lower portions of room O through registers o o, and flue B<sup>2</sup> having valve B therein. A ventilating-flue C<sup>2</sup> also connects with such room O and has a valve C therein. Through holes therefor in plates d there passes vertically the bar D, which is secured in any desired position of vertical adjustment therein by means of a bolt or pin d<sup>2</sup>, as seen, the upper plate d engaging holes in bar D therefor.

Slides A', B' and C' each fit loosely on bar D and are secured thereon in any desired position of vertical adjustment, each by means of a combined handle and bolt a', b', and c', as indicated in each slide entering holes therefor in bar D.

Each of such valves A, B and C is provided with a strong spring a<sup>10</sup>, b<sup>10</sup> and c<sup>10</sup>, or other equivalent device, as seen, which will cause

such valves, each one, to close and remain closed when not otherwise held open.

Valve A is opened from slide A' by means of wires or rods a, a<sup>2</sup> and a<sup>4</sup> and elbow levers a' and a<sup>3</sup>. In a similar manner valve B is operated from slide B' through wires or rods b and b<sup>4</sup> and elbow-lever b', and valve C from slide C' through the rods or wires c and c<sup>4</sup> and lever c'. Thus it will be seen that each of such valves may be operated independently of either of the others and secured in any desired position of adjustment, except when it is desired to limit their movements and adjustments to prevent unnecessary and improper combinations of their relative positions and adjustments in the manner to be described.

Passing through slide A' on its left-hand side, as seen, is the stop-rod a<sup>6</sup>, secured in any desired position vertically in such slide A' by means of a set-screw a<sup>8</sup> in such slide, as indicated. This stop-rod a<sup>6</sup> may extend downward, so that its lower end shall rest on top of slide C', or it may be adjusted and secured at any desired distance therefrom, whereby the opening of valve C may be prevented or limited, as desired, when valve A is closed. A similar and similarly-adjusted and secured stop-rod b<sup>5</sup>, secured in the right-hand side of slide B' in the same manner by a set-screw a<sup>9</sup>, as indicated, prevents or limits the opening of valve C when valve B is open. A third and similar and similarly-adjusted stop-rod a<sup>5</sup> in the right-hand side of slide A, and secured by a set-screw b<sup>9</sup>, prevents or limits the closing of valve A when valve B is closed. Thus it will be seen that, except as prevented in the way described by means of these stop-rods, each valve is capable of independent motion and adjustment.

For the purpose of ventilating basement G, when desired, and also to supply to room O air from outside thereof that has been cooled by passing through the basement G, valves E and F are moved to their positions indicated in dotted lines, respectively, at E' and F'.

I will mention that the heater H may be located in any desired position either in room O or outside thereof in a basement, as shown, or in a separate room or building therefor, and also that such heater may be used to im-



part to the air caused to pass therethrough any desired quality, whether of temperature or humidity.

I do not limit myself to any particular style or construction of valves or slides, preventing or limiting stops, or actuating devices. I do not, however, claim, nor does my present invention consist in, any particular arrangement of the flues or valves therein and the heater relatively to the room or rooms to be heated.

Valves A, B, and C, when secured in any desired relative adjustments by means of their respective slides A', B', and C' on bar D, may all be operated together by moving bar D by means of the handle d', indicated at the upper end thereof, and securing such bar D in any desired position in the manner already described.

I claim—

1. A system of flues, dampers therein, independent operating and adjusting devices for each of such dampers in combination with means for adjustably connecting to a common locking and operating device each of such independent operating and adjusting devices.

2. The combination with a system of flues and dampers therein, of independent means for operating and adjusting each of such dampers, and a detent connected with one such independent operating and adjusting means, such detent arranged in the path of movement of devices connected with or forming part of another one of such independent operating and adjusting means.

3. The combination with a system of flues and dampers therein, of independent means for operating and adjusting each of such dampers, and a detent adjustably connected with one of such independent operating and adjusting means, such detent arranged in the path of movement of devices connected with or forming a part of another one of such independent operating and adjusting means, and also arranged to impart motion from said one to said other one of such independent operating and adjusting means, in one direction only.

MILTON H. COOLEY.

Witnesses:

J. R. DAVIS,  
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