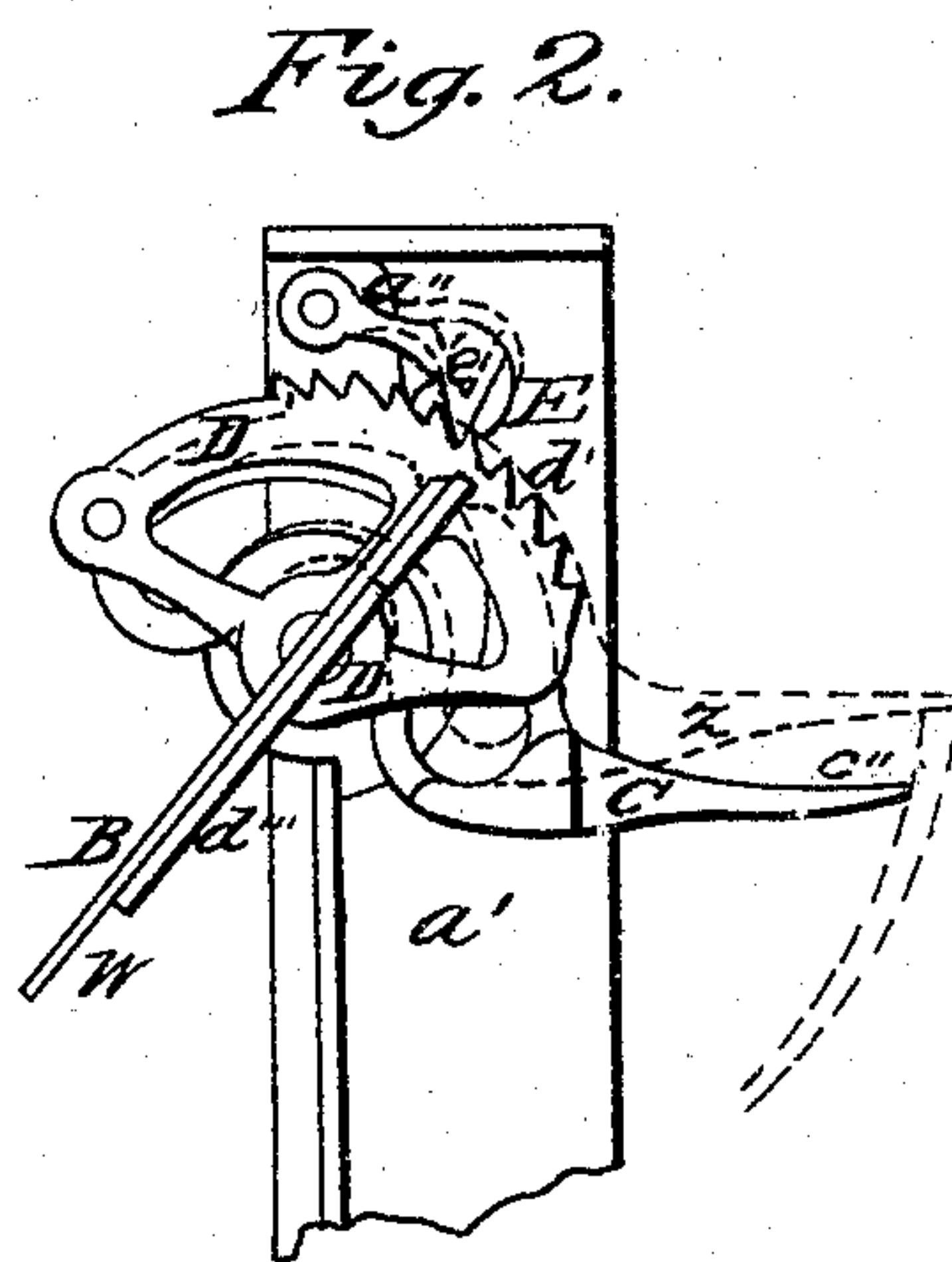
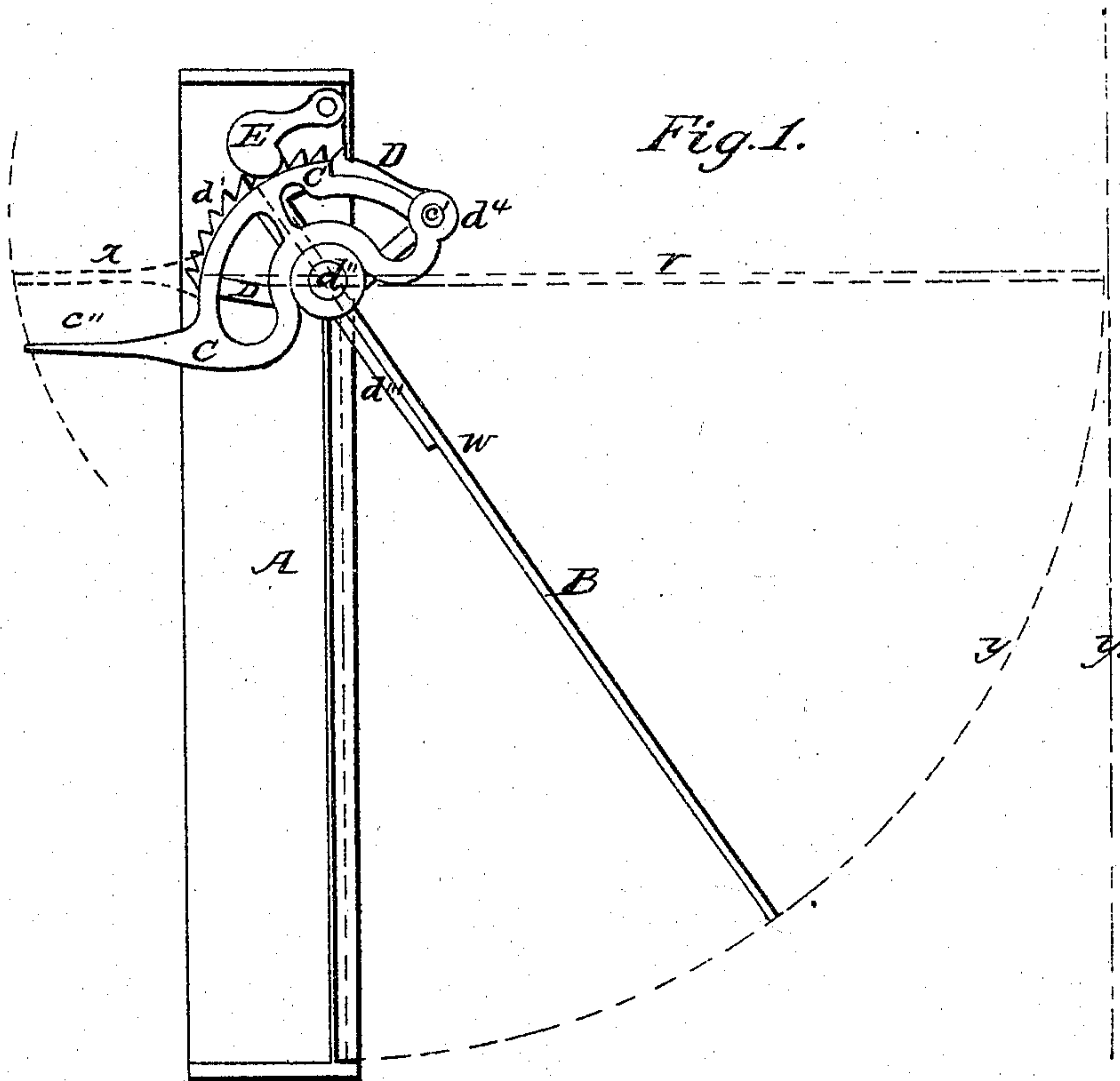


W. L. McDOWELL.

Hot-Air Register.

No. 99,692.

Patented Feb. 8, 1870.



Witnesses.
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WILLIAM L. McDOWELL, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 99,692, dated February 8, 1870.

REGISTER FOR AIR-FLUES.

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

I, WILLIAM L. McDOWELL, of the city of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Registers for Air-Flues, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to the combination of a lever, a ratchet-toothed sector, and a pawl or detent, with the valve-plate and frame of a register, for either hot or cold-air flues, in such a manner that, by means of the lever, the pawl or detent can be raised out of connection with the teeth of the sector, and the valve-plate allowed to be closed against its frame, and also so that by simply pressing the said lever downward, the pawl or detent will slip freely over the teeth of the sector, and retain the valve-plate in the air-flue at any angle in relation to its frame that may be desired by the operator of the lever; the object of my invention being to afford greater facility in closing the valve-plate, and in adjusting its position in the flue, so as either to divide the draught into any two separate currents, or to cause the whole of it to pass either through the flue or through the register, as may be desired.

Description of the Accompanying Drawings.

Figure 1 is a side elevation of a register having one side of its frame removed, in order to exhibit my invention embodied therein.

Figure 2 is a view of the opposite side of my invention, as in connection with a section of the side of the frame, which is mentioned as being absent from fig. 1.

General Description.

- A is the frame of the register;
- B, its valve-plate;
- C, the lever;
- D, the sector; and
- E, the pawl or detent.

The frame A is made in the usual form, but its valve-plate is single, and when closed, occupies the whole area of the opening in the frame A, and swings on two journals in bearings near the upper end of the frame.

One of the journals, d'' , is cast to project from the centre of the sector D, together with a flat plate, d''' , on the edge of the sector, whereby the said sector is riveted fast to the valve-plate B, so that the said journal d'' will rest in its bearing in the side a' of the frame A.

The circular edge of the sector has a series of ratchet-teeth, d' , which pitch toward the back part or flue-side of the register.

The pawl or detent E is pivoted to the plate a'' of

the frame A, and has a V-shaped tooth, e' , on its inner side, which fits in between any two of the series of teeth d' . (See fig. 2.)

The lever C has its fulcrum-pin c' in the inner end d^4 of the curve of the sector, and its power end c'' projecting through the front and close to one side of the frame A.

Its upper edge is curved, to form a cam-surface corresponding in line with the base of the series of teeth on the sector D, and rests partly around upon the cylindrical shoulder of the journal d'' , (see fig. 1,) and is prevented by an offset, c , which will come in contact with the sector D, and thus prevent the lever C from being lifted too high. (See fig. 2.)

It will now be understood, without further description, that when the power end c'' of the lever C is raised, as indicated by the dotted lines z , fig. 2, it will lift the pawl or detent E, and thus permit the valve-plate B to be closed by lowering it, by turning it on its journals, against the frame A, and that by pressing the end c'' of the lever C downward, the said valve-plate will be raised thereby, and that the tooth e' of the pawl or detent E will slip over the ratchet-teeth, and eventually hold the said valve-plate at whatever position within the flue to which it may have been elevated, whether the position be to entirely close the flue, as indicated by the dotted lines v , fig. 1, or only partially, so as to divide the draught between the said flue and the register-opening, as shown at w , in both figures, the dotted line y , in fig. 1, indicating the back of the said flue.

The front end of the sector D may, if desired, be made with a projecting stem at a point a little above the stem c'' of the lever C, as indicated by the dotted lines x , in fig. 1, so that by placing one's thumb upon it, the end c'' of the lever C may be raised by the finger, and the valve-plate thus be operated by one's thumb and finger; but the simple projection c'' of the lever is believed to be the better device for the purpose, especially when the register is located near the floor of the room, because it permits the valve-plate B to be operated as well by one's foot.

Claim.

I claim, as my invention—

In combination, with the valve-plate and frame of a register or ventilator, the lever C, sector D, and pawl or detent E, substantially as and for the purpose hereinbefore set forth.

WM. L. McDOWELL.

Witnesses:

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