(No Model.)

J. D. VANCE.

FIRE PLACE DAMPER.

No. 389,424. Patented Sept. 11, 1888.

FIG. 1.

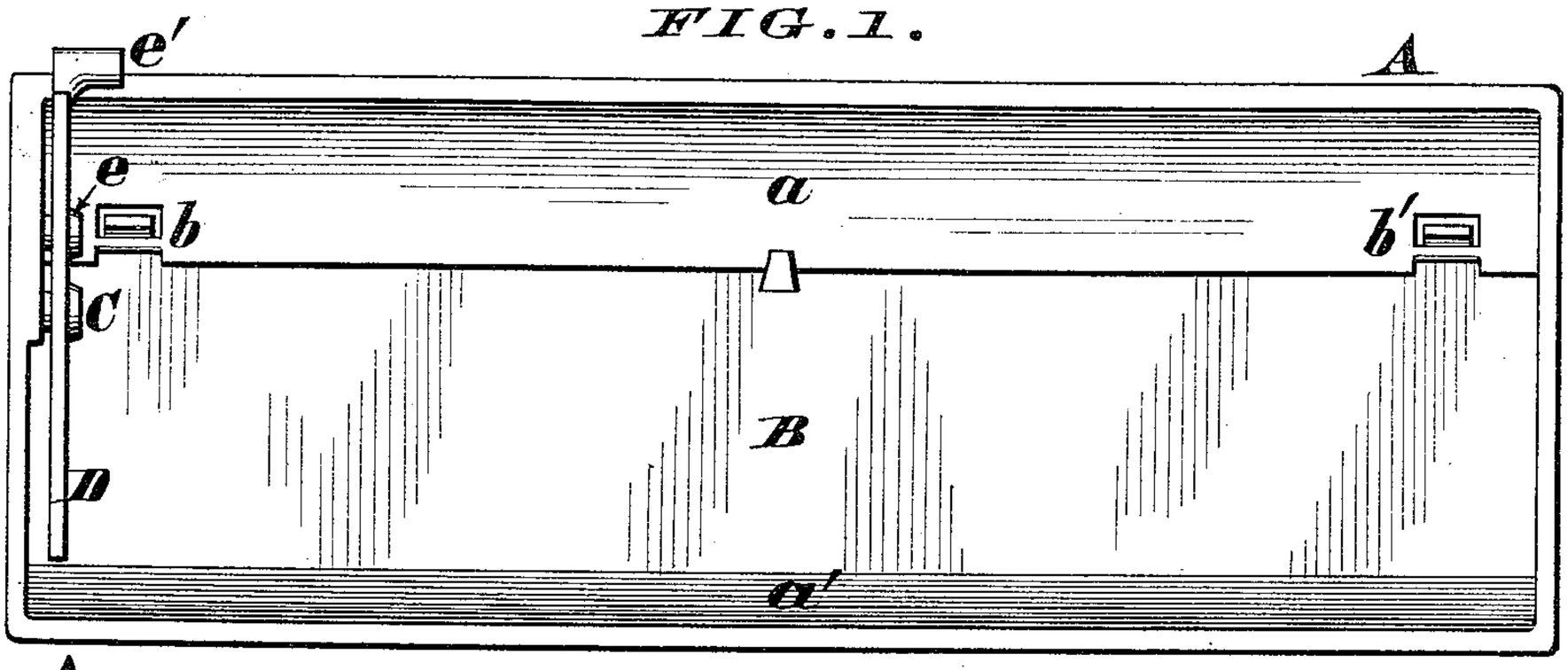


FIG. 2.

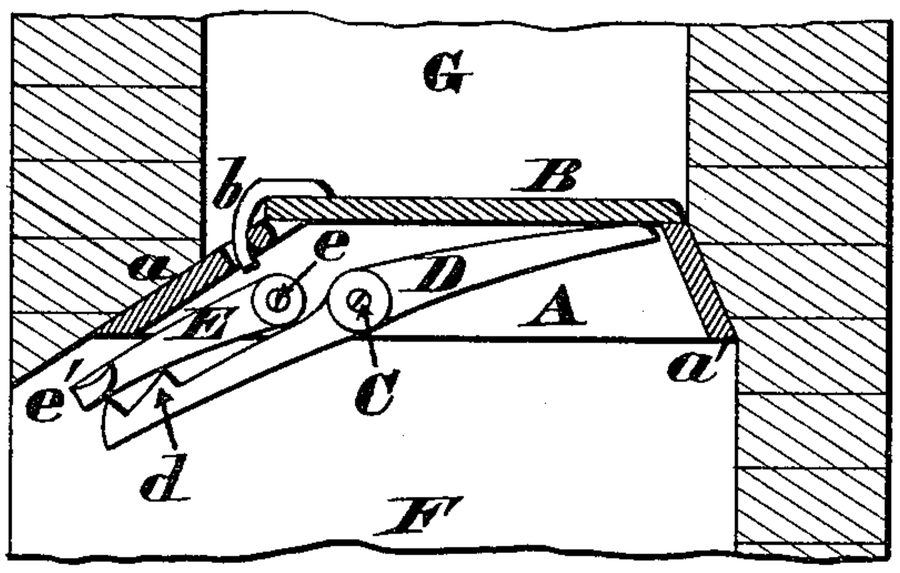
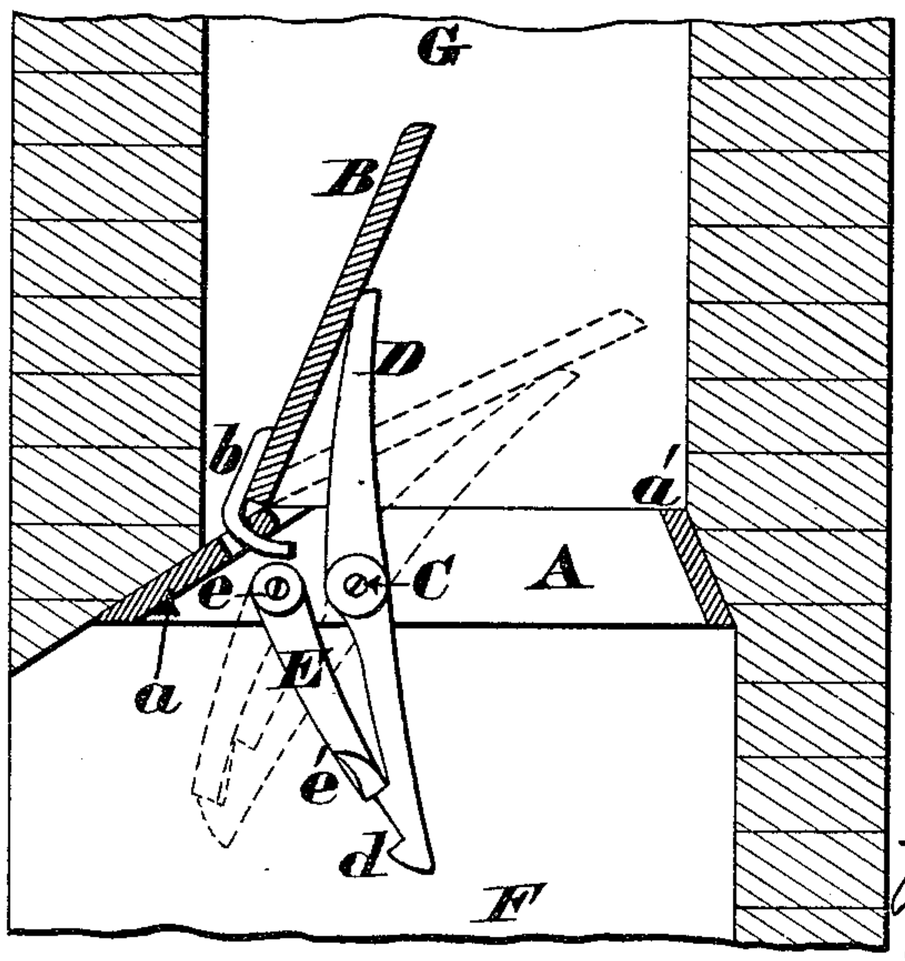


FIG. 3.



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UNITED STATES PATENT OFFICE.

JOHN D. VANCE, OF CINCINNATI, OHIO, ASSIGNOR TO THE EUREKA FOUNDRY COMPANY, OF SAME PLACE.

FIRE-PLACE DAMPER.

SPECIFICATION forming part of Letters Patent No. 389,424, dated September 11, 1888.

Application filed May 7, 1888. Serial No. 273,139. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. VANCE, a citizen of the United States of America, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Place Dampers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention comprises a specific construction of damper capable of being readily fitted within the throat of a fire-place, and having means of adjustment whereby the draft can be regulated or the passage of the flue completely closed, as occasion requires. The supporting member of the device consists of an open casting or throat-frame fitted within the upper part of the fire-place, in order that the damper, when shut, may rest closely upon said frame. This damper is hinged to the upper front edge of the frame, and said frame has a lever and gravitating pawl pivoted to one end thereof, the inner extremity of said lever being in contact with the under side of said damper. The outer extremity of this lever is provided with notches or teeth, wherewith is engaged the lower or free end of the aforesaid gravitating pawl, by which arrangement the damper can be maintained at any desired angle, so as to control the draft, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a plan of the under side of the throat-frame with my damper attachments applied thereto. Fig. 2 is a vertical section showing this frame fitted within a fire-place, the damper being seen in its normal or closed position. Fig. 3 is a similar section, but showing the damper open.

A represents a throat-frame of the proper size to be readily fitted within an ordinary fire-place, the front *a* and rear portion, *a'*, of said frame being generally inclined, as shown, while its opposite ends are about vertical. Hinged to the front upper edge of this frame, as at *b b'*, is the damper proper, which consists of a plate, B, adapted to close upon said frame, as seen in Fig. 2.

Fulcrumed to either end of the frame, as at C, is a lever, D, of the first class, the inner or rear extremity of said lever being in contact with the under side of damper B. The front or outer extremity of this lever is notched at *d*, to permit the ready engagement of the lower or free end of a gravitating pawl, E, which pawl is pivoted to the frame at *e*. *e'* is a short laterally-projecting lug at the free end of this pawl, for a purpose that will presently appear. F is an ordinary fire-place, and G is the flue of the same.

The method of applying my damper is as follows: The throat-frame A, with the lever D and pawl E pivoted thereto, but without the plate B, is first secured in the upper part of the fire-place, the absence of said plate affording the mason ample room for filling in mortar, so as to close up all crevices between the chimney-wall and the upper edges of said frame. Reference to Fig. 1 shows that the damper is about five times as long as it is wide, and therefore as soon as the throat-frame is secured in place said damper is passed up endwise through said frame. The damper is then turned around and its hinges *b b'* are engaged with the appropriate slots in the front upper edge of frame A, in order that the damper B may be practically level when shut down upon said frame, as seen in Fig. 2, in which position said damper closes the flue and prevents dust and soot being blown out into the room. Furthermore, in this closed position of the damper the free end of pawl E rests upon the front portion of lever D, thereby elevating the rear extremity of the latter and causing it to come in contact with the under side of damper B, which damper can be opened at any time by simply pressing down upon the lug *e'*. As this lug is directly under the chimney-breast, it can be readily reached with a poker or other suitable implement, and by forcing the pawl back until its free end engages with the inner tooth of rack *d* the lever D will be swung up until the damper B assumes the position seen in Fig. 3, thereby affording an unobstructed draft up the flue G; but if a full draft is not required the pawl E is engaged with the outer tooth of rack *d*, which act retains the damper in the position indicated by the dotted lines in said illustration, thereby restricting the flue area.

It will be noticed that the arrangement of

the parts is such as to prevent the damper reaching a perpendicular position when completely open, and therefore said damper bears against the lever and causes the latter to engage positively with the pawl. Consequently there is no danger of the damper accidentally dropping and closing the flue-passage; but this closure can be intentionally effected at any time by disengaging the pawl from the lever-rack and allowing said damper to assume the position seen in Fig. 2. Finally, as the devices D E, that operate the damper, do not project beyond the wall of the fire-place, it is evident said devices cannot be struck by any person passing in front of the fire; neither are they liable to be tampered with by children.

I am aware that adjustable dampers and draft-regulators are not new, and therefore my claim is not to be construed broadly, but is expressly limited to the specific arrangement and combination of devices herein described and illustrated.

I claim as my invention—

The combination, in a fire-place damper, of frame A, plate B, hinged thereto at *b b'*, pivoted lever C D, and pivoted pawl E *e*, the hinges *b b'* being applied to the front upper edge of frame A, which latter is secured within the chimney-throat, and the free end of said lever being provided with a retainer, *d*, wherewith said pawl engages, all arranged as herein described, and for the purpose stated.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN D. VANCE.

Witnesses:

JAMES H. LAYMAN,

RANKIN D. JONES.