

S. ALBERTSON.

Damper.

No. 59,789.

Patented Nov. 20, 1866.

Fig. 1

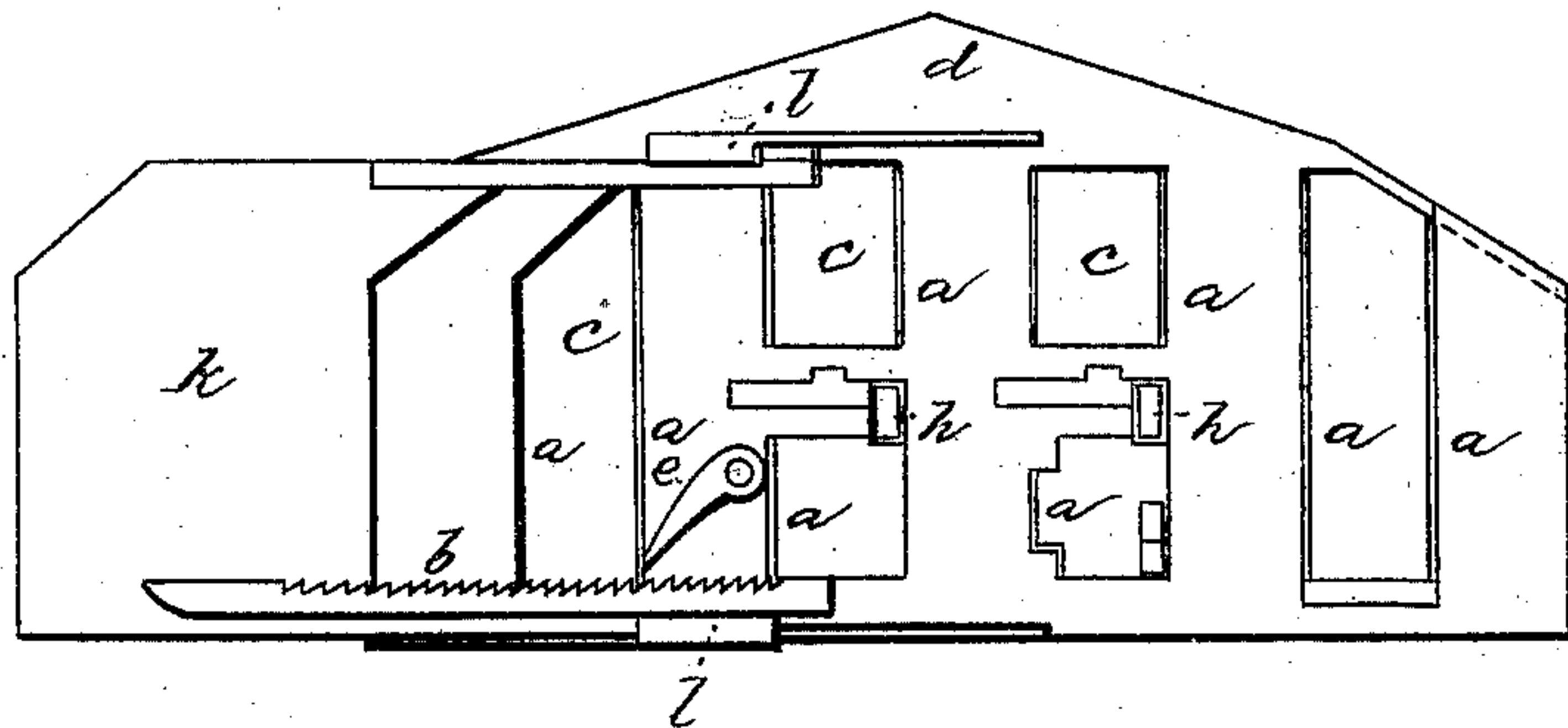


Fig. 2

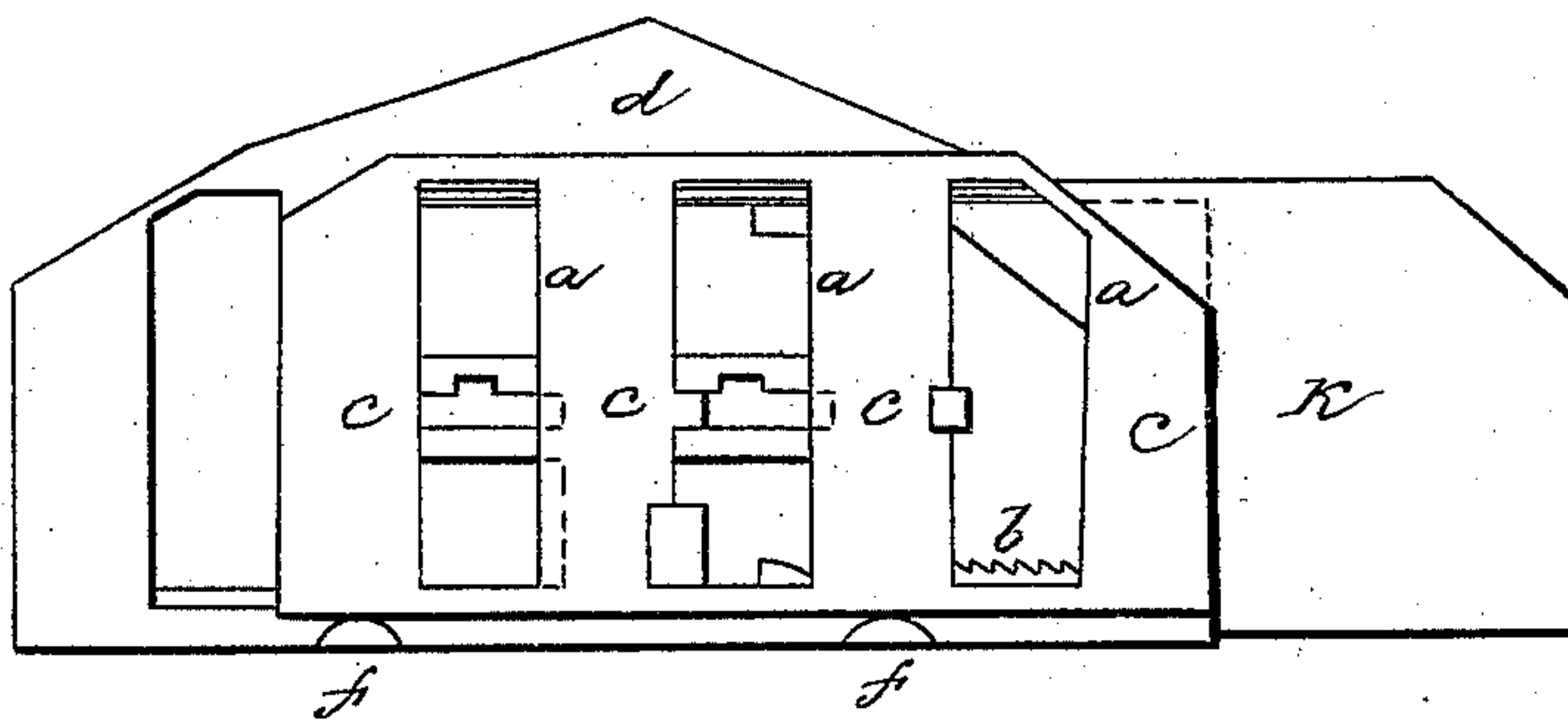
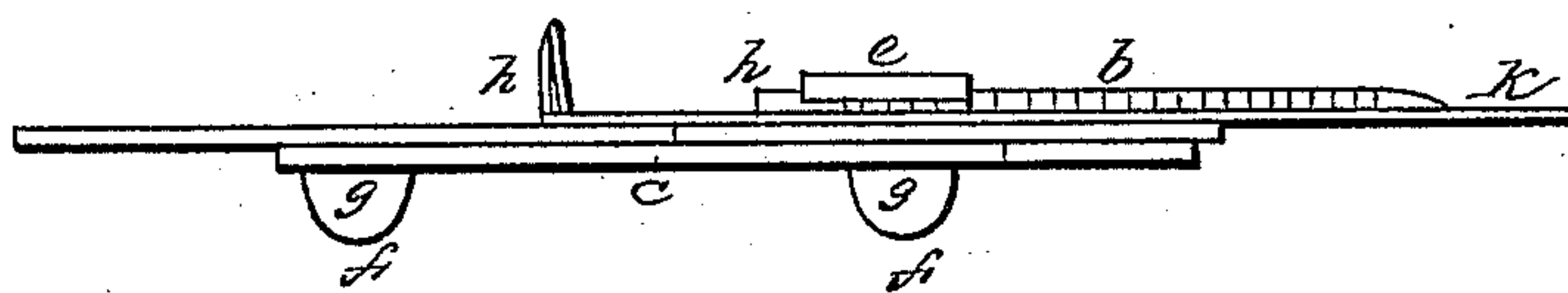


Fig. 3



Witnesses:

J. L. Kinsley
J. B. Rogers

Inventor:

Sam^l Albertson

United States Patent Office.

ADJUSTABLE DAMPERS FOR FIRE-PLACES.

STEPHEN ALBERTSON, ADMINISTRATOR OF THE ESTATE OF SAMUEL ALBERTSON, DECEASED, OF NEW YORK.

Letters Patent No. 59,789, dated November 20, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known SAMUEL ALBERTSON, of the city of New York, in the county and State of New York, did invent a new and improved arrangement to be applied to the mouth of chimneys, in front of or above the grate or fire-place, which I call a "Fire-place Controller." The purpose of my arrangement is to govern or control by regulation the mouth of the chimney, so that by enlarging or contracting the openings more or less draft of air will pass to and through the chimney.

For this purpose, I provide two plates, in either of which are suitable openings, alternated by solid spaces, so that by sliding the movable plate over the stationary one the solid part will cover the openings in the stationary plate. I make a stationary or fixed plate to fit the mouth of the chimney. This fixed plate is combined with the mason work at the mouth of the chimney above the grate or fire-place, and is constructed as hereinafter described. Combined with the fixed plate is a second or sliding plate, there being in it solid parts alternated with open spaces, so arranged that the open spaces will correspond with similar spaces in the fixed plate and thus, by sliding it to and fro over the fixed plate, the openings will be increased or reduced at will, as the solid is moved over the open space, and in reversed movement the spaces will be enlarged, thus by sliding it forward the open space will be covered by the sliding plate to just such an extent as its solid part may overlap the spaces in the fixed plate, the spaces and solids being substantially the same in both the stationary and the sliding plates, so that when the sliding plate is open the openings in both plates will correspond and leave free openings in and through both plates; while, if it is desired to reduce the openings, we have merely to slide the movable plate so that its solid part shall overlap and cover the openings in the fixed plate, and this may be so done as to entirely close the mouth of the chimney and prevent all draft, or to limit the draft at will, from its being entirely closed to its being open to the full extent of the limit of the spaces in the fixed and sliding plates. Thus, by controlling the amount of opening from more to less, and *vice versa*, the amount of draft to the chimney is entirely governed at the will of the user.

To enable others skilled in the art to make and use my invention, I will describe its construction and operations; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, and the letters of reference marked thereon. The same letters always denote the same parts in all the figures of the drawing.

Of the Drawings.—Figure I is a front view. Figure II is a back view. Figure III is a top view.

I make a plate of suitable size to fully cover the mouth of the chimney above the grate or fire-place, and so arrange the plate with the mason work that the whole becomes a fixture together, leaving no openings or spaces around it. This plate may be termed a frame, (see *d* in drawings,) and has openings of limited size which correspond with similar openings in the sliding plate or frame, so that when the openings in both plates are opposite each other it will allow a free passage of air, gas, and smoke from the fire-place and the room to the chimney. *a* in the drawings marks the openings, and *c* the solid parts of the frame or plate. This plate has suitable attachments cast upon it to connect it with the sliding plate.

The second or sliding plate has openings in it, so that when it is in its proper position, combined with the stationary plate or foundation, it will cover the provided spaces or openings in the fixed plate. The movable or sliding plate has openings in it; the openings in both plates, as here shown, are in form elevated oblong squares, but in their lateral or side movement the solid part of the sliding plate is intended to overlap and cover the openings in the fixed plates; while, when the sliding plate or frame is opened in full, the openings in it will be immediately and positively over the openings in the fixed plate.

So far the apparatus is substantially a common valve or sliding damper, but I will now present the features which I deem to be novelties, and for which I claim to be novel and useful the specialties to be considered. The stationary plate and the sliding plate are combined so as to fit closely together. This may be done in any common way, such as bolts screwed into the fixed plate, with a shoulder equal to the thickness of the sliding plate, and an enlarged head outside the sliding plate, the shoulder part fitting in suitable grooves in this plate, will hold it properly in its position, allowing it only to move in the desired way; that is, to slide laterally to and fro, as may be desired to open or close the openings to the chimney. Attached to the fixed plate at one end is a separate attachment, and in it are grooves for bolts, and bolts are used to firmly attach it to the main body of

the stationary plate, so that when fixed it will form a part thereof. The object of this extension piece, *k*, forms a ready means of adjusting the length of the plate to the masonry work, so that if the mouth of the chimney be longer or wider this will be adjusted, so as to entirely fit and cover the entire opening, and if shorter it will in like manner be adapted, so that the whole will become a fixture upon which the sliding plate may rest and act. Upon the stationary plate is fixed a rack, *b*, and upon the sliding plate is a pawl, *e*. This pawl acts with and upon the rack to hold the sliding plate confined in the position and at the point where it is desired to have it, so that the openings may be just as wide as may be desired for the draft; that is, the passage of more or less air, gas, and smoke to the chimney in a given time. Thus it will be seen that wider or larger the openings are the greater will be the draft, and *vice versa*. By closing the draft less fuel is consumed, and thus it is economized; besides, the less the opening the less dust can come from the chimney into the room. I provide a suitable nob or handle upon the sliding plate, by which it can be moved to and fro at will by the hand or some suitable instrument. The pawl must be raised when the sliding plate is to be moved backwards until the plate is in the proper position, when pawl will fall into and catch upon the rack and hold the sliding plate in the position which it has been placed.

The parts are known as follows in the drawings: *a* are spaces nearly closed by the overlapped plates; *c* is the solid or covering part of the plates; *b* is the rack; *e* is the pawl; *d* is the frame; *f* are projecting feet upon which it rests.

Such other parts are cast upon or attached to the plates as will make up one complete device when in place.

In some respects this device resembles an ordinary damper. But what I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the extension piece *k* with the rack and pawl, for the purpose of governing or controlling the sliding plate upon and with the stationary plate, as herein described and set forth.

STEPHEN ALBERTSON.

Administrator for Estate of Samuel Albertson.

Witnesses:

J. L. KINGSLEY,

L. PITKIN.