(No Model.) 2 Sheets—Sheet 1.

T. I. RANKIN.

FLUE DAMPER.

No. 421,141. Patented Feb. 11, 1890.

FIG. 1.

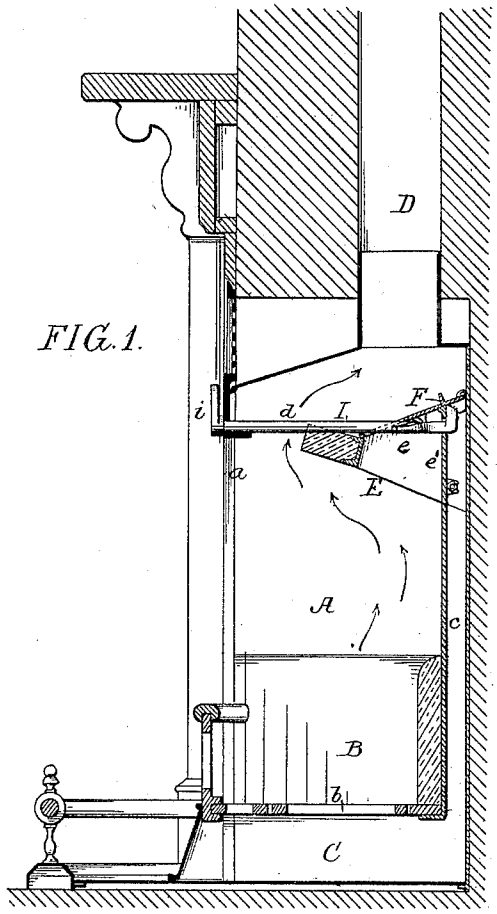


FIG. 2.

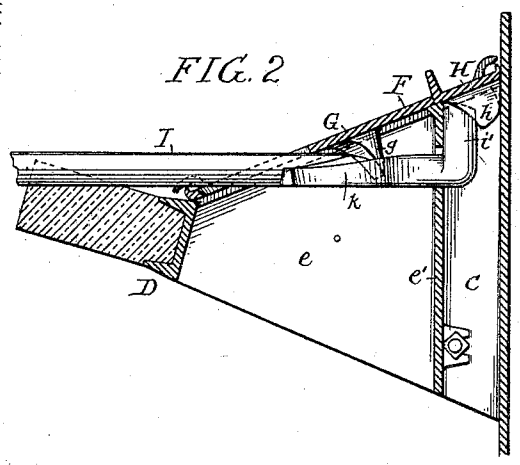


FIG. 6.

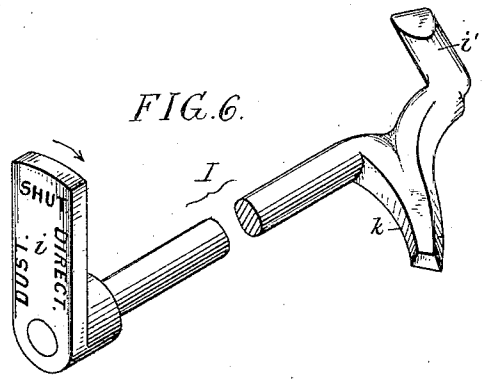
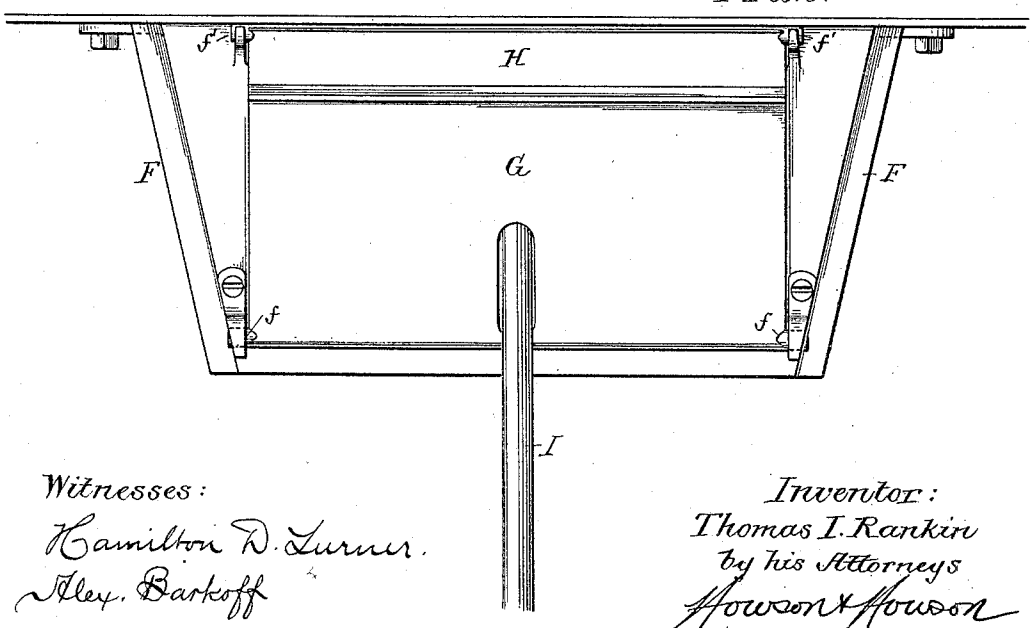


FIG. 5.



Witnesses:
Hamilton D. Turner.
Alex. Barkoff

Inventor:
Thomas I. Rankin
by his Attorneys
Howson & Howson

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

T. I. RANKIN.

FLUE DAMPER.

No. 421.141. Patented Feb. 11, 1890.

FIG. 3.

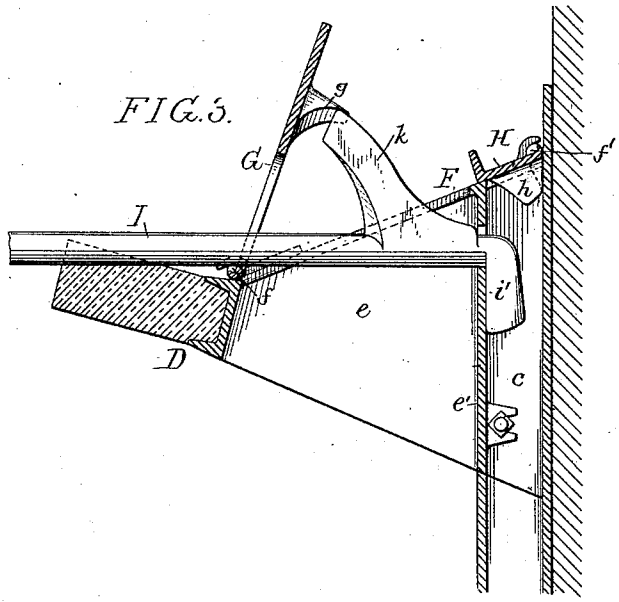
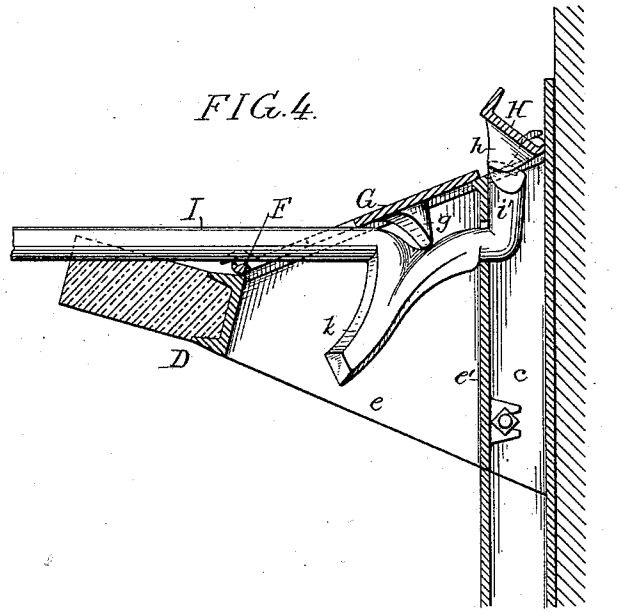


FIG. 4.



Witnesses:
Hamilton D. Turner.
Alex Barkoff

Inventor:
Thomas I. Rankin
by his Attorneys
Howson & Howson

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS I. RANKIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE ABRAM COX STOVE COMPANY, OF SAME PLACE.

FLUE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 421,141, dated February 11, 1890.

Application filed October 28, 1889. Serial No. 328,382. (No model.)

To all whom it may concern:

Be it known that I, THOMAS I. RANKIN, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Flue-Dampers, of which the following is a specification.

The object of my invention is to provide a damper for open fire-places or fire-place stoves, by which both the direct-flue damper and the dust-flue damper can be operated from one operating-rod, as fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a fire-place, showing my improvement. Fig. 2 is a sectional view of the damper portion, showing both dampers closed. Fig. 3 is a view showing the direct-flue damper open and the dust-damper closed. Fig. 4 is a sectional view showing the dust-damper open and the direct-flue damper closed. Fig. 5 is a plan view of the damper-section, and Fig. 6 is a view of the operating-handle.

A is the fire-place; B, the fire-pot; *b*, the grate; C, the ash-pit, and *c* the dust-flue from the ash-pit.

D is the main flue connected to the chimney, and with which the dust-flue is also connected.

E is the inclined deflector made of fire-brick or metal. This deflecting-brick directs the products of combustion from the back of the fire-place toward the front and up the front flue *d*. An opening *e* in the deflector E is the direct-draft flue, and situated above the deflector is a frame F. (Clearly shown in Figs. 2 and 3.) This frame is secured to the fire-place in any suitable manner, and pivoted to lugs *f f* on this frame is the hinge-damper G, and hinged to lugs *f'* on the upper portion of the frame F is a dust-damper H. A flue-strip *e'* separates the dust-flue *c* from the direct flue *e*.

I is an operating-rod having its bearings in the flue-strip *e'* and in the frame *a* of the fire-place, and on the outer end of this rod is a handle *i*, marked as shown in Fig. 6, so as to indicate, when it is in one position or the other, what, if any, flue is open. On the inner end of this rod I is an arm *i'*, which acts upon a cam-lug *h* on the under side of a damper H when the handle is turned in the direction of the arrow, Fig. 6, thus raising the damper and connecting the main flue and dust-flue, so that when the fire is raked the dust therefrom will pass up the dust-flue to the chimney.

On the rod I is an arm *k*, preferably curved as shown. This arm acts upon a lug *g* on the under side of the damper G when the handle is turned in a direction reverse to that shown by the arrow, Fig. 6, thus raising the damper to the position shown in Fig. 3, allowing the products of combustion to pass up the direct flue to the chimney.

I claim as my invention—

1. The combination of the direct flue and the dust-flue, dampers for each flue, and an operating-rod having arms so arranged that one arm will act upon the direct-flue damper and the other arm will act upon the dust-flue damper, substantially as set forth.

2. The combination of the direct flue and dust-flue of a fire-place, the deflecting-plate with a frame mounted on said deflecting-plate, with dampers pivoted to said frame and closing the direct flue and the dust-flue, with a rod having arms, one arm adapted to act upon one damper and the other arm adapted to act upon the other damper, substantially as described.

3. The combination, in a fire-place, of the deflecting-plate, flue-openings therein, with a frame, substantially as described, a partition-plate *e'* separating the dust-flue from the direct flue, with a rod having its bearings in said plate, with dampers hinged to said frame and closing the direct flue and dust-flue, and arms on said rod adapted to raise one or other of the dampers, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOS. I. RANKIN.

Witnesses:
HENRY HOWSON,
HARRY SMITH.