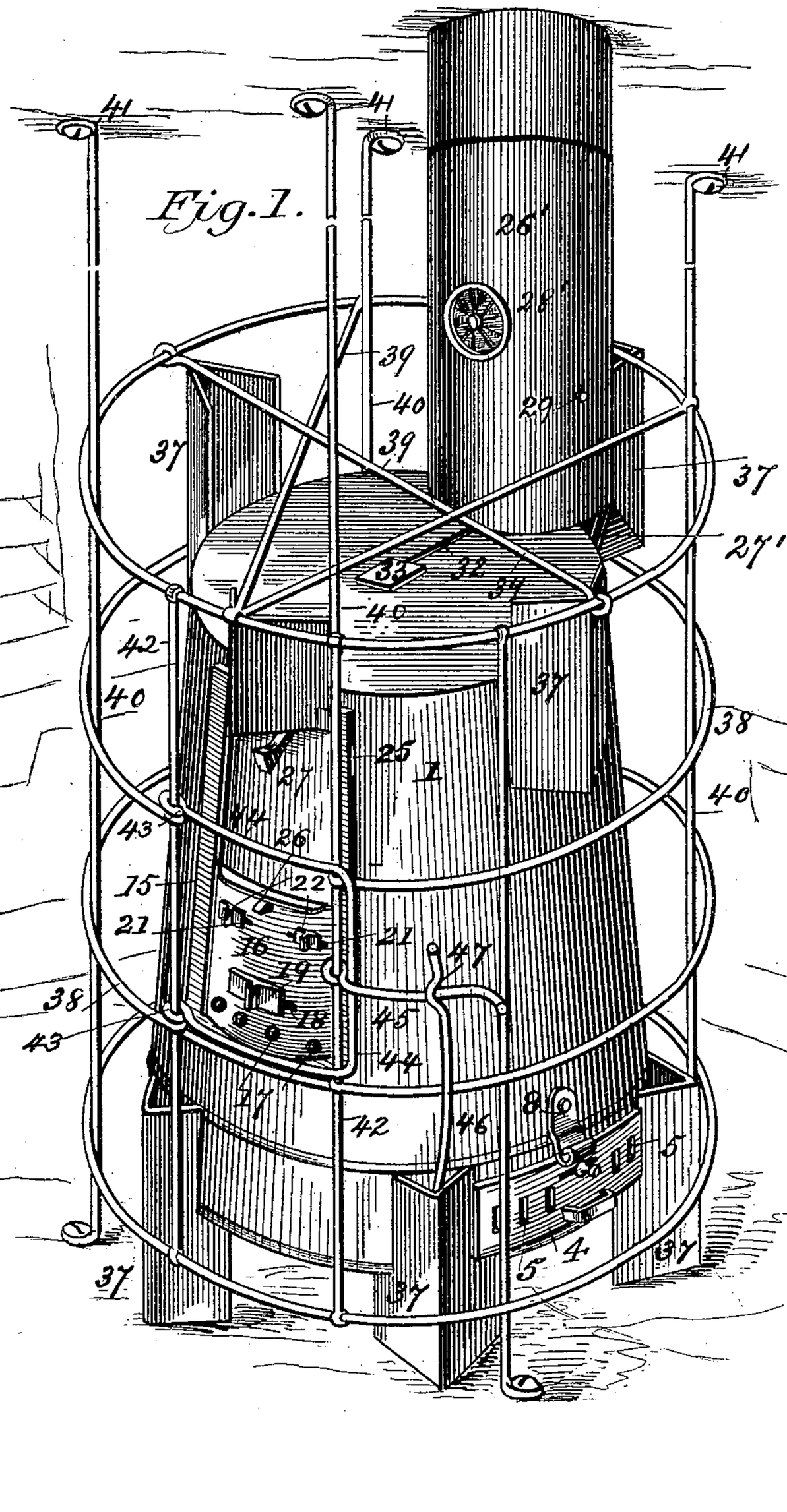
(No Model.) 2 Sheets—Sheet 1.

M. E. COOK.

RAILROAD CAR STOVE.

No. 495,880. Patented Apr. 18, 1893.

Fig. 1.



Witnesses

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J. N. Diggers

Inventor

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(No Model.) 2 Sheets—Sheet 2.

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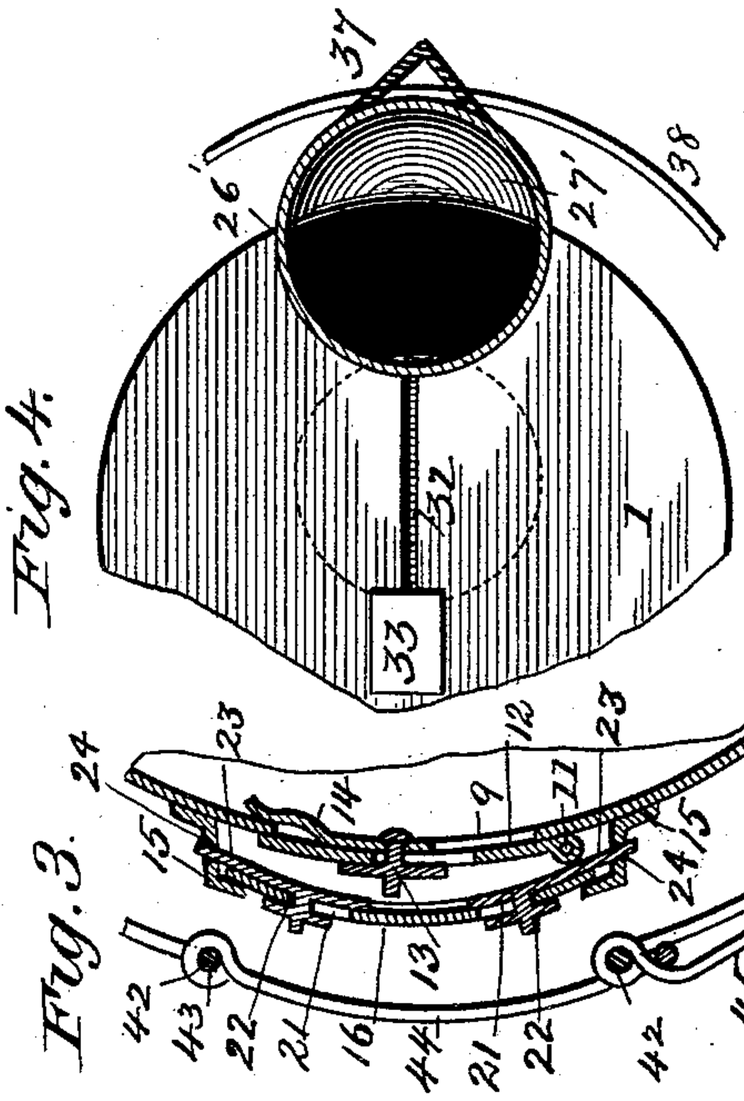

Fig. 4.

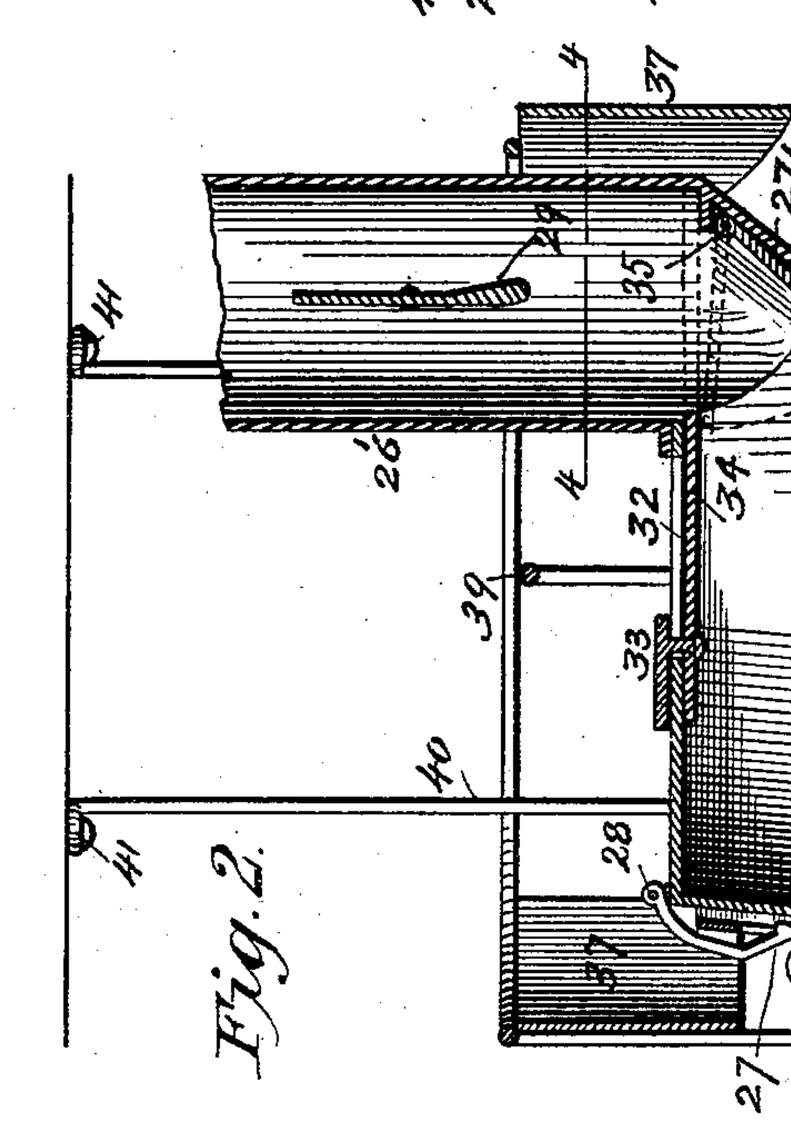

Fig. 3.

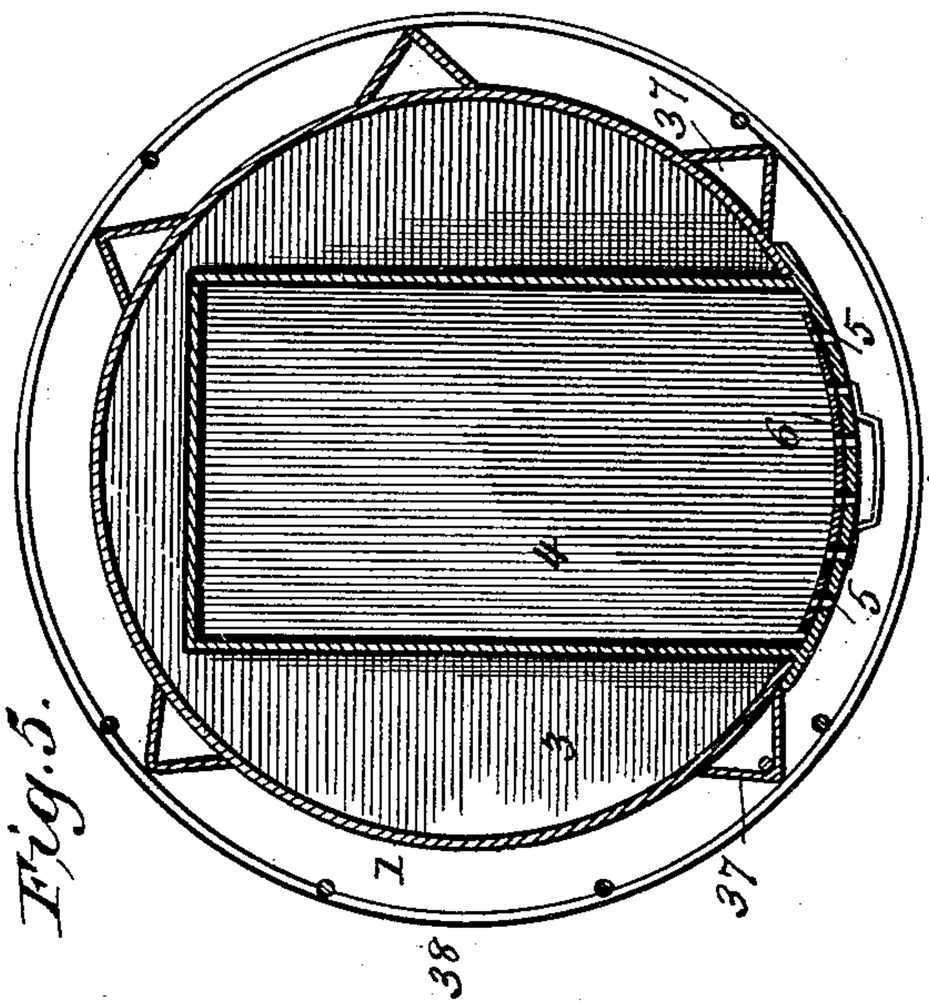

Fig. 5.

Fig. 2.

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UNITED STATES PATENT OFFICE.

MARY E. COOK, OF AMITY, OREGON.

RAILROAD-CAR STOVE.

SPECIFICATION forming part of Letters Patent No. 495,880, dated April 18, 1893.

Application filed May 20, 1892. Serial No. 433,719. (No model.)

To all whom it may concern:

Be it known that I, MARY ELLEN COOK, a citizen of the United States, residing at Amity, in the county of Yam Hill and State of Oregon, have invented a new and useful Railroad-Car Stove, of which the following is a specification.

My invention relates to improvements in stoves; and particularly to that class known as railroad-stoves, and employed in coaches.

The objects of my invention are to provide a stove that is so constructed as to remain securely closed and prevented from rolling when a coach becomes wrecked and thus avoid setting fire to the coach or burning the passengers by reason thereof.

Various other objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a stove constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a transverse section on the line 3—3, Fig. 2. Fig. 4 is a similar view on the line 4—4, Fig. 2. Fig. 5 is a similar view on line 5—5 of said Fig. 2.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the cylindrical stove-body, in which is located a grate 2, below which an ash-pit 3 is formed. A drawer 4 is located in an opening formed in the wall of the stove, and extends into the ash-pit. This drawer is provided with a series of draft-holes 5 in its front end, and they may be opened and closed by means of a slide 6, after the ordinary manner. The front end-wall of the drawer is larger than the opening in which the drawer is located, and consequently extends over the edges thereof, and the said drawer is locked against accidental removal by a pivoted button 8, secured to the wall of the stove.

Above the grate or fire-pot of the stove, a fuel-opening 9 is formed, and to one side of the same there is hinged at 11 a door 12. The door is slotted, and receives a button 13, which is secured to a sliding bolt 14, located upon the inner side of the door, and adapted to be engaged with the opposite end of the opening, whereby the door is prevented from accidental opening. A frame 15 of inverted L-shape encircles the door and opening covered thereby, and projects nearly to the top of the stove, or some distance above the door and its opening. The opposite sides of this frame constitute guides or ways, and receive the opposite edges of a vertically-sliding transversely-curved outer door 16. The door 16 is provided near its lower edge with a transverse series of draft-openings 17 and above the same with a slot 18, in which a button 19 is mounted for movement, said button being secured to a perforated slide 20, adapted to open and close the draft-opening. Above the draft-openings, or near the upper end of the bar, a pair of short slots 21 are formed therein, and in each slot a button 22 is designed to slide, each button being mounted on a sliding bolt 23, arranged within the door. The door may be slid down the ways or sides of the frame 15, so as to cover the door 12, and may be locked in such position by the lateral movement of its bolts, which engage with openings 24, formed in the sides of the the door 12, and locked at this point by a frame 15, or said door may be elevated above movement of its bolts into similar slots 25, located in the frame 15, near the upper end of the latter. A flange 26 is located at the upper edge of the outer door, and a weighted latch 27 is pivoted at 28 above the frame 15, and adapted to automatically engage with the flange of the door, whereby the latter may be temporarily held above the door 12.

26′ designates the chimney or pipe, and the same is connected by an inclined portion 27′ to the upper rear corner of the stove. This pipe is secured rigidly and inseparably to the upper end of the stove, so that it cannot be wrenched off in case of an accident; and furthermore to render it still safer, is preferably formed of soft iron, so that it will bend and twist before separating. In the pipe above the stove a damper 28′, of ordinary construction, is pivoted; the same being used to regulate the draft. A rotatable damper or cut-off 29 is mounted in the pipe, a short distance above the stove, and the same serves its usual function. The top of the stove is provided with a slot 32, and in the same a slide 33 is mounted, the same being fastened to a sliding damper 34, which should the stove fall upon its back or rear side, would move by

gravity over the inner or lower side of the pipe. In the portion 27′ of the pipe there is loosely pivoted or hinged as at 35 a damper 36, which should the stove become inverted or fall upon its front so that the sliding damper should not operate, would operate, or fall by gravity over the opening at the lower end of the pipe.

At intervals the bottom and top edges of the side-walls of the stove have secured thereto V-shaped metal blocks or legs 37, and the same have their angular portions pointing outward. In whichever position the stove might be thrown, these blocks will act as legs or supports, and prevent the stove from rolling about upon passengers within the coach and they will also support it sufficiently above the woodwork to prevent any ignition.

The stove is preferably surrounded by a wire framework, the same consisting of a series of encircling rings 38, arranged at suitable distances apart, the upper ring being above the stove and connected by transverse brace-bars 39, which rest upon the upper series of angular legs. The entire series of rings are connected by vertical bars 40, which reach from ceiling or roof of coach to the floor, and terminate in eyes 41, through which screws are passed into the roof and floor. Short vertical bars 42 connect the rings at opposite sides of the doors, and to one of these is hinged as at 43 a wire door 44, which forms substantial continuations of the two intermediate rings. This wire door is engaged by a pivoted hasp 45, also formed of wire, and loosely connected with one of the aforesaid short vertical wires 42. The free end of the hasp after having been passed through the door and over the same, being sprung into engagement with the vertical lever 46, which is secured at its lower end to the base of the stove, is formed of spring-wire and provided with an offset or kink 47, for engaging the hasp; or any other means may be employed for securing the wire door in position.

From the foregoing description, it will be seen that the wire frames constitute a guard around the stove, thus preventing any accident by falling against the stove, or by the stove being thrown against woodwork or other inflammable material; furthermore that the doors are all secured against accidental opening; that the pipe-opening is so protected as to be automatically closed the instant the stove assumes anything but a vertical position, and finally that by the angular legs which act as anchors in case the stove is upset, said stove is prevented from rolling and tumbling about, and is supported above the floor or other woodwork, whereby early ignition of the parts is prevented.

Having described my invention, what I claim is—

1. The stove having the fuel-opening combined with the series of rings encircling the stove, the bars connecting the rings at opposite sides of the opening in the stove, a wire door hinged to one of the bars, a hasp hinged to the opposite bar and passed through and around the door, and a spring-lever having an offset adapted to engage the free end of the hasp and secured to the base of the stove, substantially as specified.

2. The stove, having the fuel-opening and the hinged door provided with suitable fastening-means, combined with the opposite ways at the sides of the opening, said ways having opposite openings at the sides of the hinged door and above the same, a sliding door mounted in the ways and provided with slots, bolts in rear of the slots, buttons in the slots and secured to the bolts, the latter being adapted to engage the openings in the ways, the flange at the upper end of the sliding door, and the pivoted gravity-latch above the ways for engaging the flange, substantially as specified.

3. The stove having the fuel-opening and the hinged door provided with suitable fastening-means, combined with the opposite ways at the sides of the opening, said ways having opposite openings at the sides of the hinged door and above the same, a sliding door mounted in the ways and provided with slots, bolts in rear of the slots, buttons in the slots and secured to the bolts, the latter being adapted to engage the openings in the ways, substantially as specified.

4. In a stove, the body having the slot in its upper side or roof, and the opening at the end of the slot, combined with the stove-pipe secured over the opening, and having a damper, hinged loosely to the rear side of the opening, of a lug mounted loosely in the slot and a sliding damper secured to the lug, whereby the hinged damper closes the opening when the stove falls forward, and the sliding damper performs a similar function when the stove falls backward, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MARY E. COOK.

Witnesses:
JAMES A. LIKENS,
F. B. FERGUSON.