(No Model.) 2 Sheets—Sheet 1.

G. H. HOLLIDAY.

RANGE OR COOKING STOVE.

No. 357,929. Patented Feb. 15, 1887.

Fig. 1.

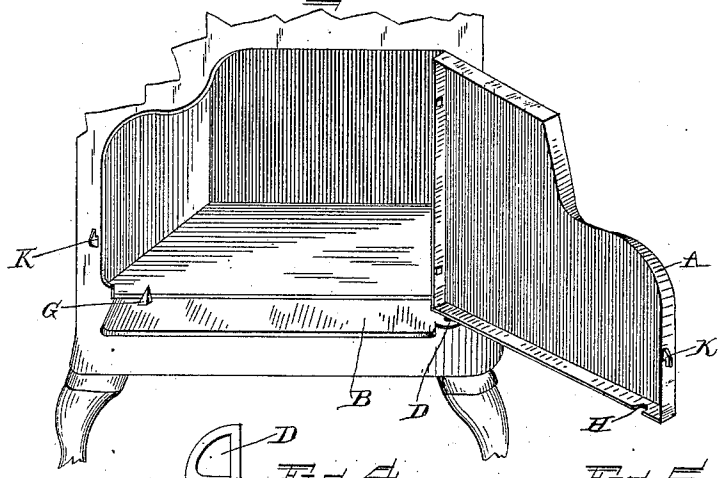


Fig. 3.

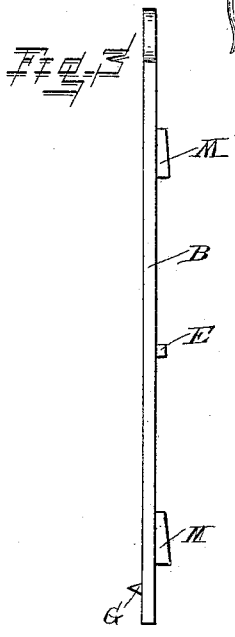


Fig. 4.

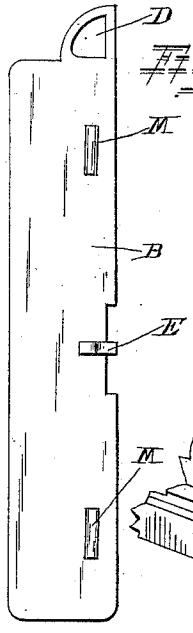


Fig. 5.

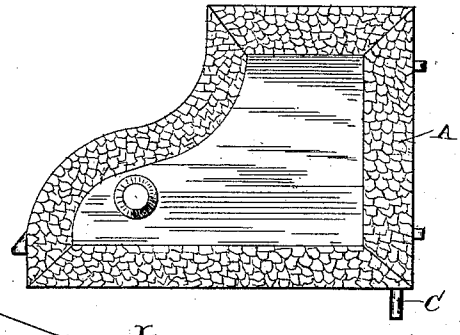
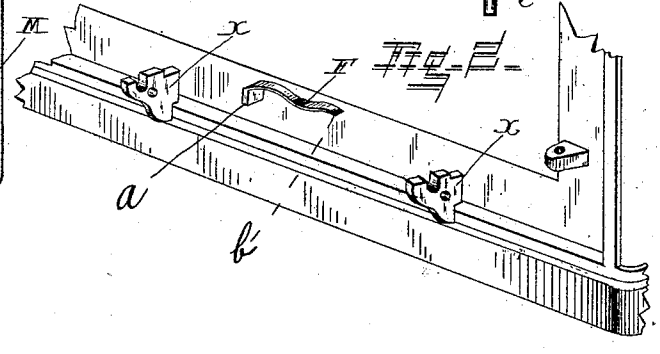


Fig. 2.



Witnesses
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By his Attorney
Henry Gustave Rogers.

(No Model.) 2 Sheets—Sheet 2.

G. H. HOLLIDAY.

RANGE OR COOKING STOVE.

No. 357,929. Patented Feb. 15, 1887.

Fig. 6.

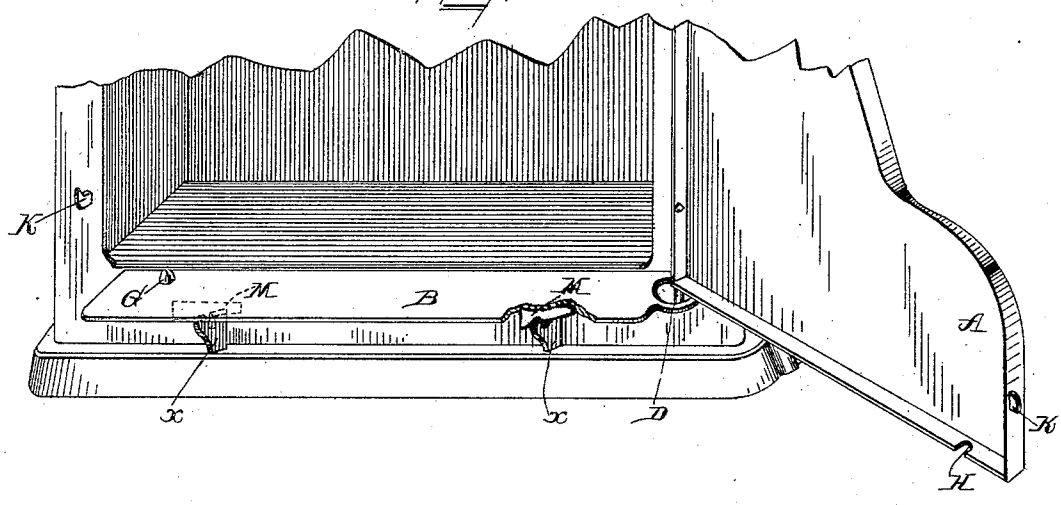


Fig. 7.

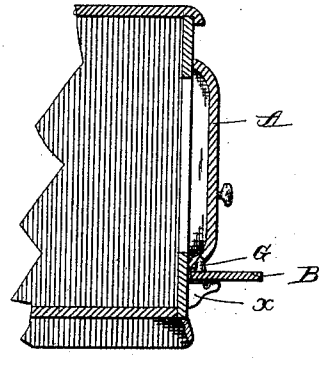
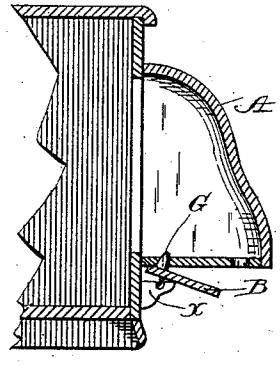


Fig. 8.



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Inventor
G. H. Holliday,
By his Attorney Henry Gustavus Rogers.

UNITED STATES PATENT OFFICE.

GEORGE H. HOLLIDAY, OF IRONTON, OHIO, ASSIGNOR OF ONE-HALF TO THE FOSTER STOVE COMPANY, OF SAME PLACE.

RANGE OR COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 357,929, dated February 15, 1887.

Application filed October 4, 1886. Serial No. 215,315. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. HOLLIDAY, a citizen of the United States, residing at Ironton, in the county of Lawrence and State of Ohio, have invented certain new and useful Improvements in Ranges and Cooking-Stoves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to ranges and cook-stoves, and has for its object the obviating of much of the inconvenience attending work in connection with the range and liability to burn the fingers, by the automatic opening of the oven-door. Hitherto the method of doing this has been by hand, to accomplish which a person has to stoop down and seize the knob attached to the door and pull it open. A lever has also been used in this connection, but serves no other purpose, and may be found to be in the way, while in my invention I make use of a simple shelf, which is so arranged as to be capable of tilting on being pressed by the foot and automatically opening the oven-door, and is also of great advantage in providing a preliminary support for objects which are to be placed in the oven.

In the accompanying drawings, which form part of this specification, Figure 1 is a perspective view of my improvement in position with a stove. Fig. 2 is part of the stove, showing brackets on which rests the shelf, and also the stop to prevent the former from tilting too far. Figs. 3 and 4 show both sides of the shelf. Fig. 5 shows the door with a pin or finger on its lower right-hand corner, to be more fully described hereinafter. Fig. 6 represents part of the shelf broken away so as to show beveled lugs and the supporting-brackets. Fig. 7 shows a sectional view of part of stove or range with the door shut, the shelf in normal position, with the projection G behind the recess in door. Fig. 8 shows the shelf tilted and the door open. This view is also in section.

Similar letters of reference indicate like parts in all the figures.

A is the door of the oven; B, the shelf. C is a pin or finger on the foot of the door, engaging in the slot or opening D of the shelf; E, a lug on the back of the shelf, meeting the stop F on the stove-front to keep it from tilting too far upward; G, a beveled pin or projection on the face of the shelf, engaging in the recess H of the oven-door for the purpose of opening it; K, the usual catch to fasten the door of oven. M M are beveled lugs on under side of the shelf. X X are the brackets to receive these lugs.

By consulting Fig. 2 it will be observed that two brackets are shown on the open side of the stove in suitable position under the door. The brackets have notches or recesses in their upper faces for the reception of the lugs M M, cast on the under side of the shelf B, as shown in Fig. 3, and on which the latter may rock. Near the lower left-hand corner of the oven-door is a beveled notch, H, into which fits the point G, forming part of the shelf, and it is by forcing this projection (by tilting the shelf) into the recess H that the door is first lifted off the catch and then swung open. A smooth movement is attained by making the point G pyramidal in shape, and by also beveling the sides of the recess H, so that when the one engages in the other there will be little or no jar.

The shelf, being under the door of the oven when not in use, is on a lower level than the interior of the oven, and therefore must be raised sufficiently, so that objects may be slid from one to the other. For this purpose I construct the shelf with inclined lugs M M on its under side, having a suitable rise in them, on which the shelf rocks, and I connect the shelf with the door by means of an eye or slot in it and a pin or finger on the door, so that the opening of the latter shall automatically raise the other by drawing the higher parts of the lugs onto their bearings. The shelf is placed in position on the brackets, the lug E being under the stop F, the point G in the recess H, with the door shut upon it, and the finger C engaged in the eye D of the shelf.

The person wishing to open the door puts his foot on the shelf—it makes no difference on what part of it—and applies a sudden pressure upon it. The back of the shelf tilts up and the projection G swings the door open. As it does so the finger C, being at a short distance

from the center of movement of the door, describes an arc and carries the shelf toward the right hand, and therefore draws the higher portions of the lugs M M onto the brackets. The surface of the shelf is then on the same level with the floor of the oven.

The stop F (shown in Fig. 2) virtually guides the rocking of the shelf. Before the door is opened the point of the lug E is about half an inch from the stop, thus allowing half an inch of play to the shelf. When the latter has been tilted and the door half opened, the lug E has followed the line of the stop from *a* to *b*. The inclined lugs traveling over their bearings and raising the level of the shelf, the lug E passes along under the stop F, and remaining all the time in contact with it and holding the shelf level. In reversing the operation the shelf is forced backward by the closing of the door, the lug E has traveled back, and the projection G is again under the recess of the door, ready to open it again.

Having fully described my said invention, what I claim, and desire to protect by Letters Patent, is—

1. The combination of a range or cook-stove provided with exterior brackets, a rocking shelf constructed with one or more projections, and the stove-door having corresponding notches adapted to receive the said projection or projections, substantially as described, and for the purpose specified.

2. The combination of a range or cook-stove constructed with exterior brackets, a rocking shelf provided with one or more inclined or beveled lugs on the under side, resting on said brackets, and with one or more projections, and a stove-door formed with notches for receiving said projections, substantially as described, and for the purpose set forth.

3. The combination of a range or cook-stove provided with exterior brackets, a rocking shelf constructed with one or more inclined or beveled lugs on the under side, resting on said brackets, and one or more projections adapted to rest behind the stove-door when shut, and with a slot or eye in one portion of said shelf, and the stove-door, provided with a finger or pin engaging in said slot or eye, for the purpose specified, and substantially as described.

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

GEORGE H. HOLLIDAY.

Witnesses:
JOHN H. CANAAN,
J. D. FOSTER.