

(No Model.)

M. W. FOSTER.
STOVE.

No. 550,496.

Patented Nov. 26, 1895.

Fig. 1.

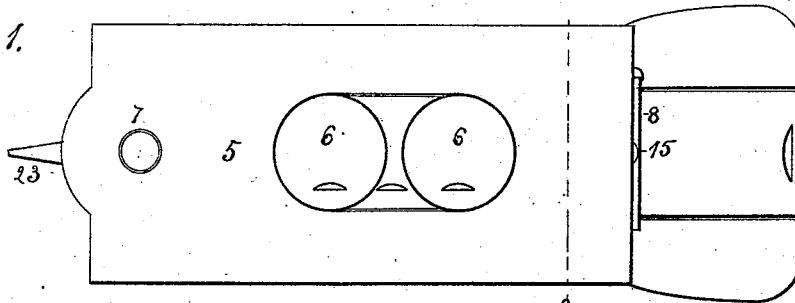


Fig. 2.

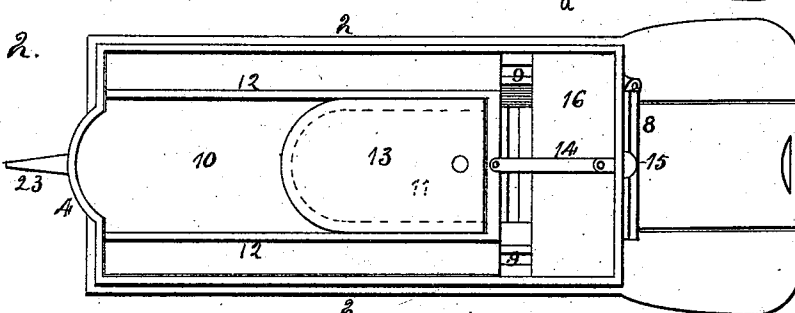


Fig. 3.

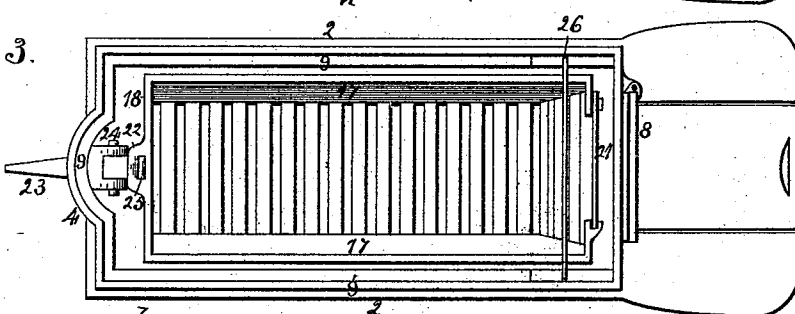


Fig. 4.

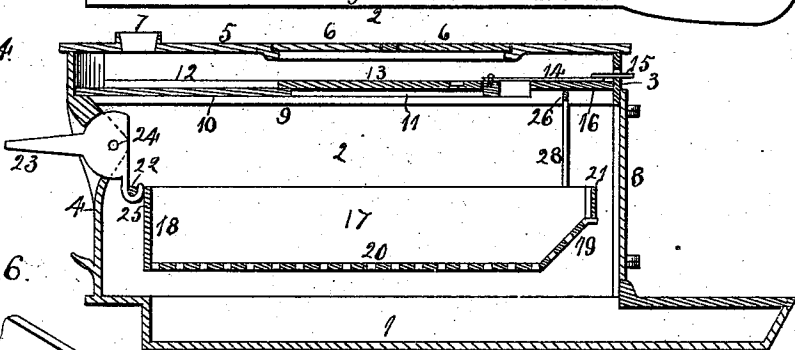


Fig. 6.

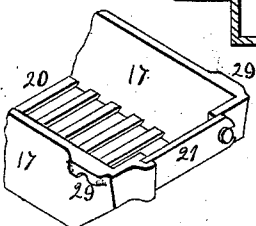
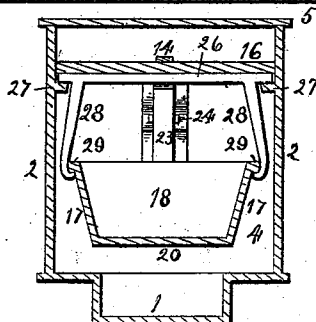


Fig. 5.



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UNITED STATES PATENT OFFICE.

MARK W. FOSTER, OF PECATONICA, ILLINOIS.

STOVE.

SPECIFICATION forming part of Letters Patent No. 550,496, dated November 26, 1895.

Application filed December 29, 1894. Serial No. 533,361. (No model.)

To all whom it may concern:

Be it known that I, MARK W. FOSTER, a subject of the Queen of Great Britain, residing at Pecatonica, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

This invention is an improvement in the class of heating-stoves having a horizontal damper or diaphragm that practically divides its interior into two compartments.

The invention is embodied in the construction, arrangement, and combination of parts hereinafter set forth.

In the accompanying drawings, Figure 1 is a plan view of my improved stove. Fig. 2 is a plan view with the top removed. Fig. 3 is a plan view with the top and sliding damper removed. Fig. 4 is a lengthwise vertical section. Fig. 5 is a transverse vertical section on dotted line *a*, Fig. 1. Fig. 6 is an isometrical representation of the front end of grate.

The stove proper consists of the bottom 1, sides 2, ends 3 and 4, and top 5, connected together in any suitable manner. The top has an opening closed by the lids 6, which may be removed to receive a boiler, and has a smoke-outlet 7. The front end 3 is closed by a hinged door 8. From the inner face of the sides 2 and rear end 4 extends a ledge 9, upon which is located a slidable damper composed of the main portion 10, parallel side ribs 12, and a slidable plate 13. The damper has an opening 11 at its front end, which is closed by a slidable plate 13, that fits somewhat loosely between the said ribs 12, the latter thus forming a longitudinal guide for the same. To the front end of the damper is connected a rod 14, extending through the front of the casing above the door 8, and has a pivoted extension 15. A plate 16 is located inside of the front 3 and in the same horizontal plane as the damper, leaving a space between its inner edge and the front end of the damper when the damper is in its rearward position. When the damper is in the position shown, the draft will be up through the opening between the front end of the damper and the plate 16, thence rearward to the smoke-outlet 7.

If a direct draft is required, the damper is drawn forward by the rod 15, leaving an open-

ing between the rear end of the damper and the rear end 4 of the casing, through which the smoke will pass to the smoke-outlet 7. By moving the plate 13 an opening is formed in the damper directly under the opening in the top 5, and the size of the opening may be varied by the movement of the plate. Thus provision is made for setting pots or kettles of different sizes and depths in the stove-hole above the plate 13, since the latter may be adjusted independently of the integral body of the damper, as required, to allow the pots to project down through the opening 11.

When the damper is moved forward, the pivoted extension of the rod 15 may be folded against the outside of the front.

Within the stove and below the damper is located a box-grate composed of the sides 17, rear end 18, front end 19, and bottom 20 of open work. The front end has a movable section 21, and the rear end 18 has an ear 22 extending therefrom.

An opening is formed in the rear wall of the casing, through which a lever 23 extends and has a pivotal connection with the end by the pin 24, and from the inner end of the lever extends a hook 25, receiving the ear 22, extending from the rear end of the grate. The front end of the grate is supported by a rocking-hanger 26. The same consists of a straight bar, whose ends rest on ledges 27 and thus serve as trunnions, and the two pendent arms 28, whose hooked free ends engage lateral projections 29 of the grate.

Below the lever on the outside of the rear end is located a shelf, serving to catch the ashes that may escape through the opening through which the lever is passed. The lever at its pivot is of circular form and closes the opening in the back of the stove, thus forming a joint, which remains practically dust-tight even when the grate is being shaken, which operation is effected by vibrating the lever. The motion imparted to the grate is a compound one, the grate being reciprocated bodily endwise and its rear end vibrated vertically at the same time.

I claim as my invention—

1. The combination, with the stove, having a pot-hole in its top, of the slidable damper arranged horizontally in the combustion chamber, and having the central opening, 11,

which is directly beneath the pot-hole, the independently slidable plate, 13, for closing said opening, and parallel side ribs, forming guides for said plate, as shown and described.

- 5 2. The combination, with the stove proper, and the grate, of the means for suspending and rocking it, which consist of the two-armed

rocker and the pivoted lever, 23, having a circular body fitted in a slot in the rear end of the stove, as shown and described.

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