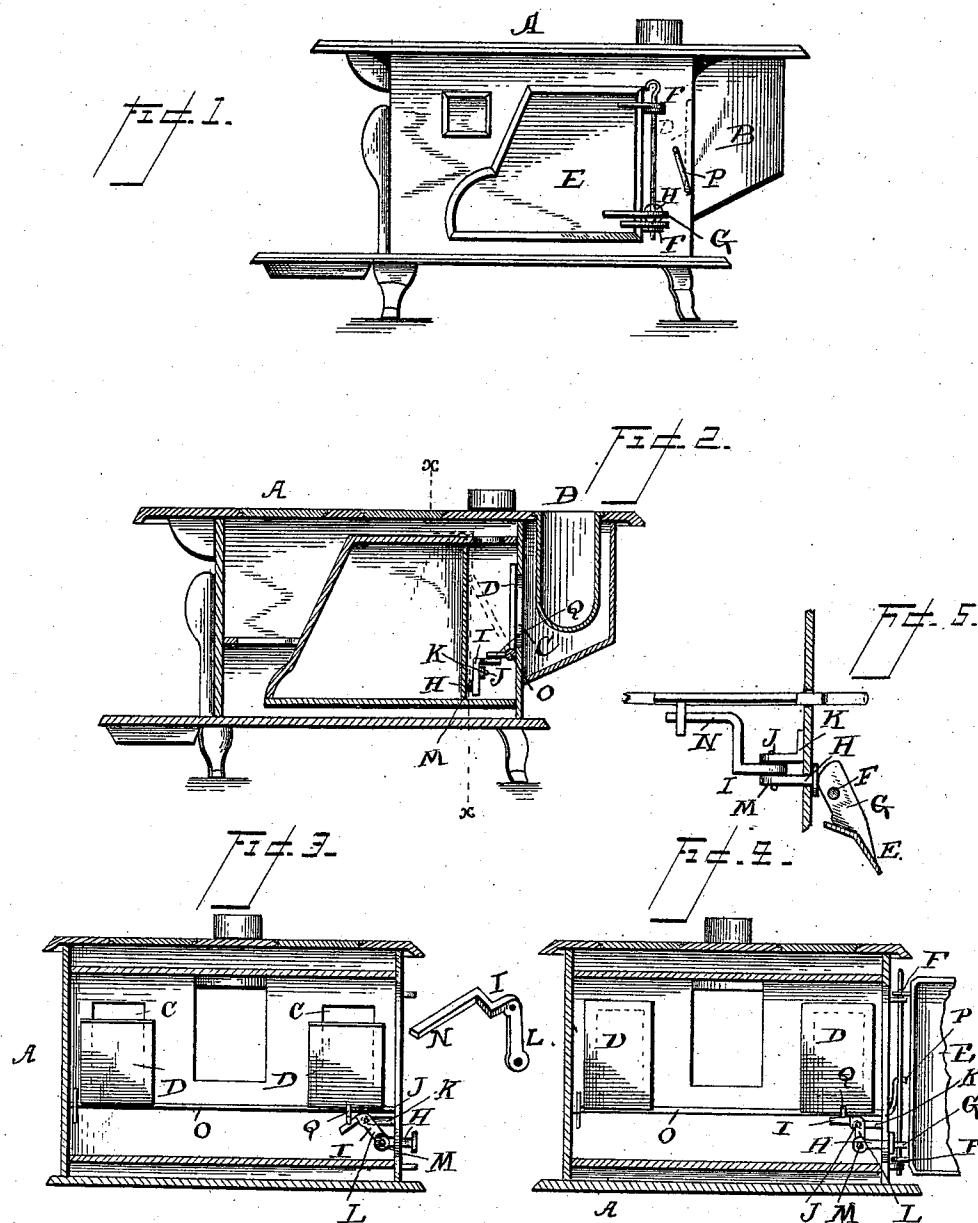


(No Model.)

J. H. WOOD.
DAMPER REGULATOR FOR STOVES.

No. 486,314.

Patented Nov. 15, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN H. WOOD, OF CHARLESTON, ILLINOIS.

DAMPER-REGULATOR FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 486,314, dated November 15, 1892.

Application filed February 23, 1892. Serial No. 422,430. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WOOD, a citizen of the United States, residing at Charleston, in the county of Coles and State of Illinois, have invented a new and useful Damper-Regulator for Stoves, of which the following is a specification, reference being had to the drawings, and to the letters of reference marked thereon.

Figure 1 is a side elevation of a stove or range to which I have applied my improvements. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a transverse vertical section showing the reservoir-damper open. Fig. 4 is a similar view showing the damper shut. Fig. 5 is a detail view hereinafter referred to. My present invention relates to stove-dampers.

The improvements consist in applying to a stove, preferably a cooking-stove, a mechanism or device so disposed and arranged that whenever the oven-door is opened the damper which controls the flues from the stove to the water-back or reservoir will be closed by the act of opening said oven-door and that when the oven-door is shut after being opened said damper will remain closed, but at the same time free to be operated by the usual handle. It will be understood that when baking the damper leading to the water-back must be closed. Otherwise the heat will not be directed to the space under the oven and the latter will not bake on the bottom. It will also be seen that in order to place any article in the oven for baking the oven-door must necessarily be opened, and this act of opening closes this damper before the baking action takes place.

Referring to the drawings, A represents a stove or range provided with a water-back or reservoir B and a flue or flues C, leading from the stove to the water-back.

D is the damper or dampers, leading from the stove to the water-back and controlling the flue-passages C, whereby the heat from the stove is directed to the water-back or cut off therefrom and thrown down under the flue or air-space beneath the oven.

E represents the oven-door, hung upon

hinges F. This door carries a cam, eccentric, or projection G, rigid therewith and moving with the door.

H is a sliding piece or bar adapted to have an endwise movement through a slot made in the side of the stove and suitably arranged in operative relation with the cam G.

I is an elbow-lever pivoted at J to a lug or ears K, rigidly secured to the stove or its lining adjacent to the oven-door E. The lower arm L of the elbow-lever I is pivotally connected at M with the sliding bar H. The opposite end N of the lever I is projected inwardly and in this instance is given a double-right-angled bend, the extremity of which is free to engage certain hereinafter-described parts.

D represents dampers covering the flue-passages, before referred to.

O is the rod upon which the dampers D are journaled, and P is the usual damper-operating lever, attached to rod O outside the stove.

Q is a projection rigid with the dampers D and rod O and projecting out within the vibratory path of the end N of the elbow-lever I, so as to be acted thereon by said lever.

The opening of the oven-door for the purpose of inserting any article to be baked causes the cam or projection G, moving therewith, to engage the outer end of the sliding bar H and force it inwardly. This inward movement of bar H causes the rocking of the elbow-lever I upon its pivot J by reason of its pivotal connection M therewith. An upward movement of the inner end N of said lever I ensues, and it comes in contact with the projection Q, secured to the dampers D, and closes them, should they be open, and, if not, the movements of the parts are idle.

When the dampers are closed by my improved damper-regulator, they remain so until opened by hand by the handle P.

Where the word "stove" is used throughout the specification it will be understood, also, that a range is meant or any other heating device to which my improvements can be applied. It should also be further understood that in speaking of a "water-back" the usual reservoir of a cooking stove or range is also included.

I claim—

In a stove of the character described, the combination of an oven having flue-passages around the same, a water-back or reservoir, 5 flue-passages leading from the stove to the reservoir, a main flue, an oven-door carrying an operating-piece, a damper controlling the flue-passages to the water-back, and mechanism arranged between the oven-door and

the damper for closing the latter upon opening the door, substantially as described.

In testimony whereof I hereunto set my hand this 17th day of February, 1892.

JOHN H. WOOD.

Witnesses:

GEO. A. KRIEG,
W. H. WILLCOX.