

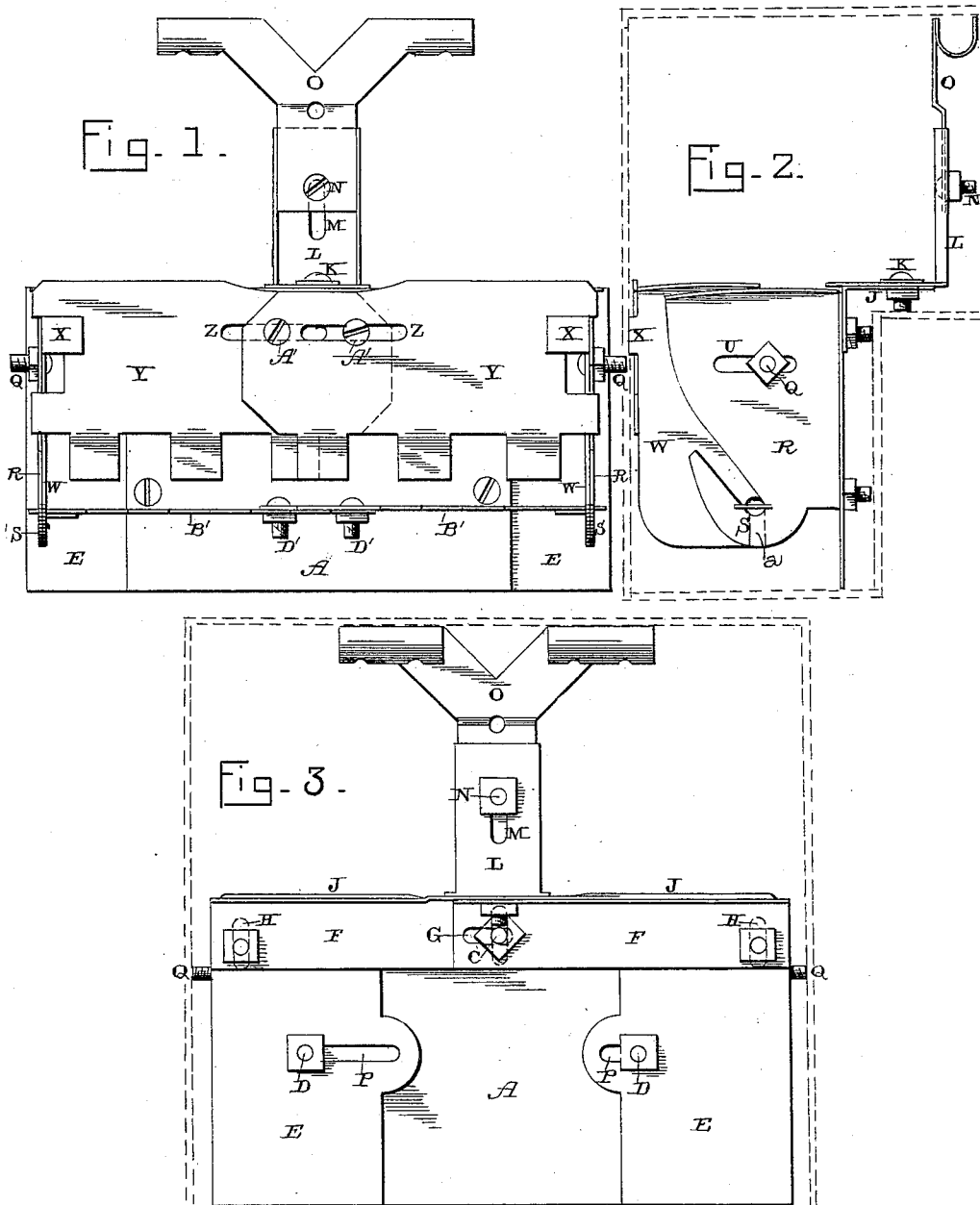
(No Model.)

2 Sheets—Sheet 1.

J. P. NEELEY.
ADJUSTABLE FIRE BOX FOR STOVES.

No. 424,896.

Patented Apr. 1, 1890.



Witnesses:

E. P. Ellis,

M. L. Bassett

Inventor:

Joseph P. Neeley

per
F. A. Lehmann, atty.

(No Model.)

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Fig. 4-

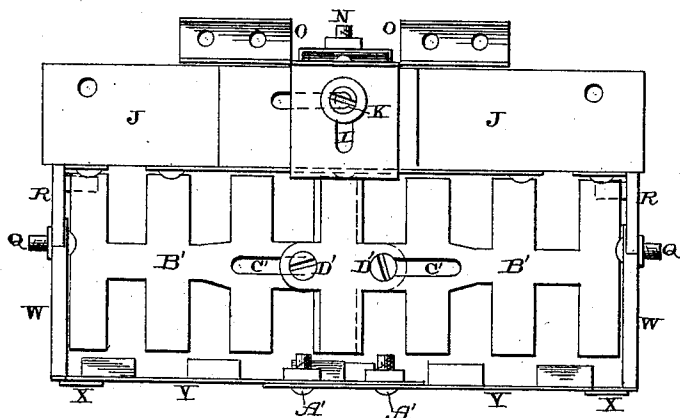
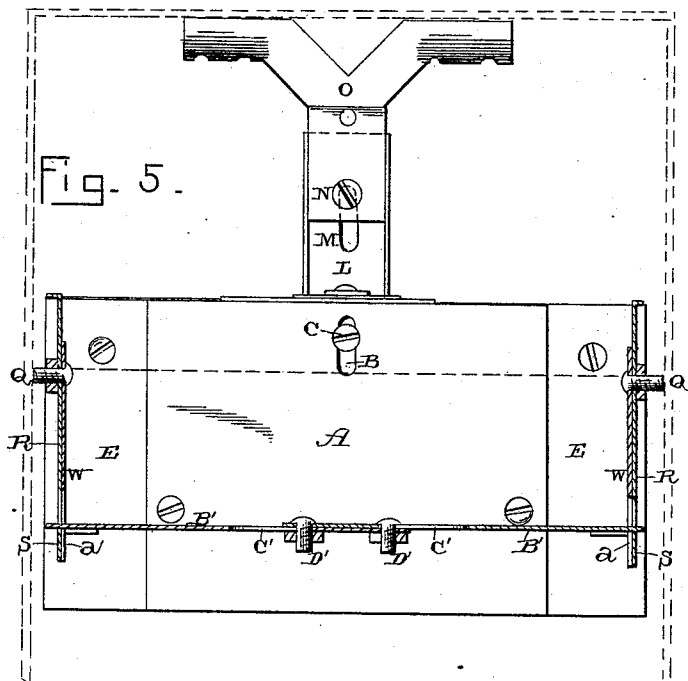


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH P. NEELEY, OF BRIDGEPORT, ILLINOIS.

ADJUSTABLE FIRE-BOX FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 424,896, dated April 1, 1890.

Application filed March 8, 1889. Serial No. 302,409. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. NEELEY, of Bridgeport, in the county of Lawrence and State of Illinois, have invented certain new and useful Improvements in Adjustable Fire-Boxes for Stoves; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in adjustable fire-boxes for stoves; and the object of my invention is to provide a fire-box which is made of a number of parts, which can be adjusted back and forth in relation to each other, so as to increase or diminish the size of the box, according to the size of the stove to which the box is to be applied.

Figure 1 is a front elevation of a fire-box embodying my invention. Fig. 2 is an end view of the same, a portion of the top of the stove being shown in dotted lines. Fig. 3 is a rear view, the top of the stove being shown in dotted lines. Fig. 4 is a plan view. Fig. 5 is a vertical section looking toward the back of the fire-box.

A represents the back plate, which is of any suitable length and width, and which has the vertical slot B made through its upper edge, and through which the clamping-bolt C is passed. Through each end of this plate A are made openings, through which the clamping-bolts D are passed for the purpose of attaching the end pieces E to the plate.

Connected to the plate A by means of the bolt C are the two adjustable top pieces F, which are provided with the longitudinal slots G and the vertical slots H. By means of the slot B through the plate A and the vertical slots H through the ends of the plates F these two plates F can be vertically adjusted in relation to the plate A and the end pieces E, so as to adjust the plates F to the height of the walls of the stove. The upper edges of the two plates F are bent over horizontally, so as to form the flange J to catch upon the top wall of the oven, and through the inner ends of this flange J are formed the slots I, by means of which the plates can be secured rigidly in position at this point by means of

the bolt K, which passes up vertically through them, and which also serves to secure the upright L in position. This upright L has the vertical slot M formed through it, and clamped to this upright by means of the bolt N, which passes through the slot M, is the vertically-adjustable brace O, for supporting the center of the central cross-piece of the stove. The central cross-piece of the stove is always liable to warp from the heat and the weight of the articles placed upon it, and this brace is provided for the purpose of supporting this cross-piece at its center, where it is most likely to sag. The brace is made vertically adjustable, so as to be adapted to the height of the cross-piece, and has its upper ends forked, so as to catch over the usual strengthening-flange, which is formed upon its under side.

The end pieces E are provided with the slots P, through which the clamping-bolts D pass for the purpose of securing them to the ends of the plate A, and these pieces E can be adjusted back and forth upon the plate A for the purpose of adjusting the length of the fire-box to the size of the stove.

Clamped to the end pieces E and the top pieces F by means of the bolts Q are the two corner pieces R, which extend downward a suitable distance and have their lower inner corners formed into bearings S for the inner corners of the revolving grate. These corner pieces, if so desired, may be formed as parts of the end pieces E. The outer lower corners of these corner pieces R are so shaped as to form bearings S for the ends of the revolving grate, as shown.

Through the upper and outer corners of the corner pieces R are formed the horizontal slots U, and passing through these slots U are the bolts Q, by means of which the end pieces W are adjustably fastened to the corner pieces R. These corner pieces R and end pieces W can be adjusted laterally, and thus made to conform to the width of the fire-box of the stove. The upper edges of both of the pieces are turned over, as shown, so as to form flanges to catch over the inner walls of the stove, or so as to hold the end pieces from coming in contact with the walls of the stove, and thus form an air-chamber between them. The end pieces W are fastened to the corner pieces R only by the single bolts Q,

and in the lower ends of the end pieces W are formed vertical slots *a* to catch over the ends of the revolving grate and prevent them from rising upward in the bearings S, formed upon the corner pieces.

Upon the front edges of the end pieces W are formed flanges or supports X, which catch in recesses formed in the ends of the vertical portions Y. The vertical portions Y are provided with slots Z at their inner ends, and through these slots are passed the clamping-bolts A', by means of which the two parts Y are secured together. These parts are made adjustable endwise in relation to each other, so as to be adapted to the length of the stove to which the grate is to be applied. These portions Y are also provided with screw-holes, through which bolts may be passed for the purpose of securing the two parts to the stove-frame.

The revolving grate B' is formed of two parts, both of which are provided with a slot C', and through which the clamping-bolts D are passed. By means of the slots the two parts of the grate can be adjusted endwise in relation to each other, so as to adjust them to different-sized fire-boxes. Each part of the grate is provided with a suitable journal at its end, and these journals are made to catch in the bearings S of the corner pieces R. The grate can be freely revolved in one direction for the purpose of dumping the contents of the box, but is prevented from turning in the opposite direction by the supports S, which are formed upon the corner pieces R.

As all of the different parts of the fire-box are cast separately and provided with adjusting slots, it will readily be seen that the box can be adjusted to stoves of different sizes, and that should one of the parts become burned out or injured it can be readily removed and replaced by another.

Having thus described my invention, I claim—

1. The combination of the vertical portions Y of the grate, provided with slots at their inner ends with the clamping-bolts, by means of which they are clamped together, and the end pieces W, provided with the flanges or supports X, which catch in recesses in the ends of the vertical portions Y and support them in position, substantially as described.

2. The combination of the revolving grate having a journal at each end with the two pairs of end pieces, the end pieces of each pair provided with hooks and vertical slots, respectively, whereby a journal-bearing is formed for the grate and the two end pieces held together, substantially as shown.

3. The combination, with the back of the box having a horizontal portion, of an L-shaped support for the center cross-piece of the top and bolts for securing the horizontal portions of the back and support together, substantially as described.

4. The combination of the fire-box with the laterally-adjustable brace, which is clamped thereto, and the vertically-adjustable support, which is clamped to the brace, substantially as shown.

5. The combination of the back plate A, the end pieces E, secured thereto, the corner pieces R, provided with the bearings S, the end pieces W, secured to the corner pieces and provided with the vertical slots *a*, and the grate provided with journals at its ends, substantially as described.

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

JOSEPH P. NEELEY.

Witnesses:

B. F. WATSON,
H. W. BUNN.