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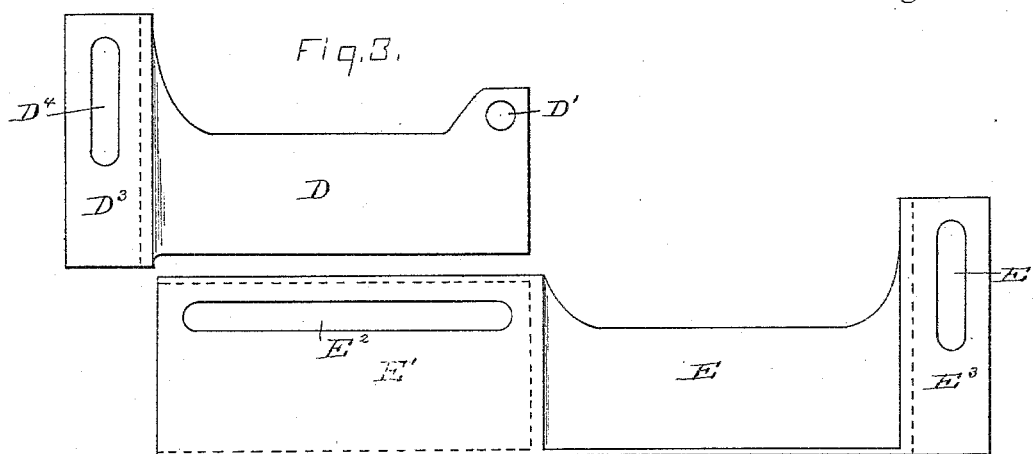
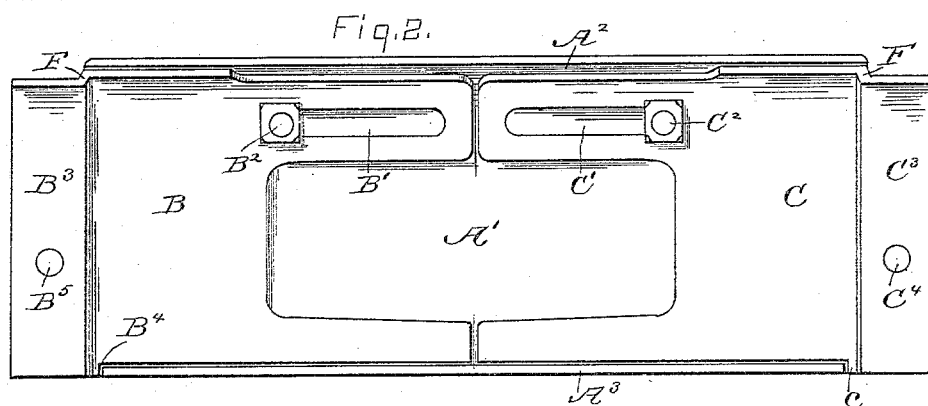
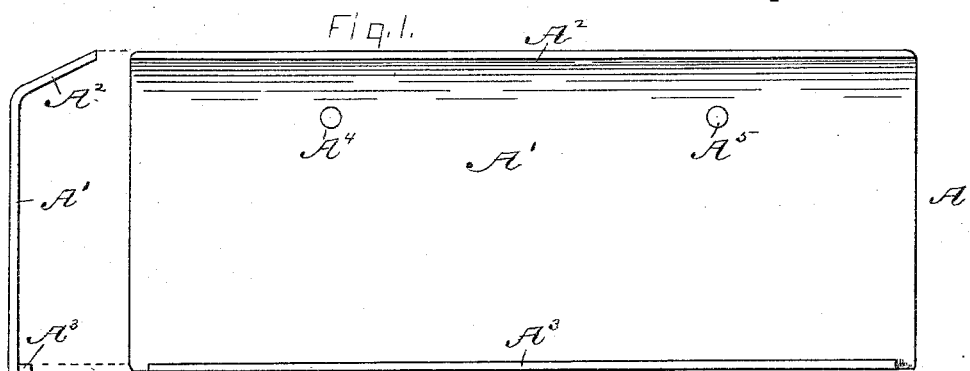
3 Sheets—Sheet 1.

W. C. METZNER.

STOVE BACK.

No. 381,713.

Patented Apr. 24, 1888.



WITNESSES—

Charles H. Roberts.  
J. E. Andrews

INVENTOR—  
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by Cyrus Kehr  
Atty.

(No Model.)

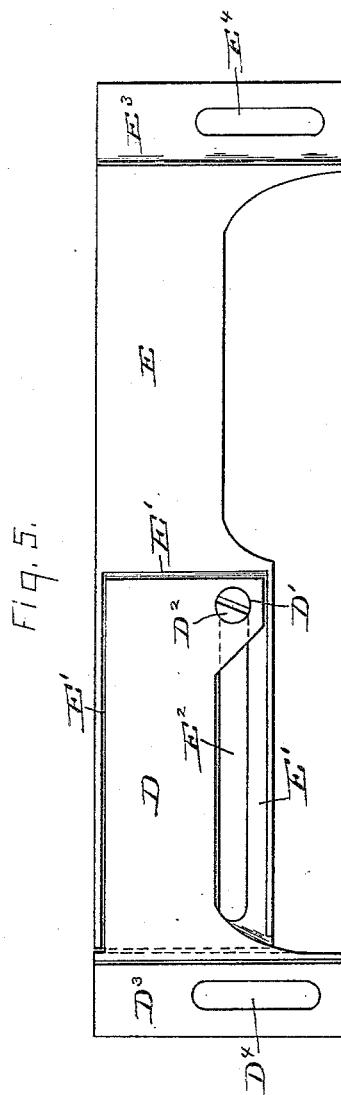
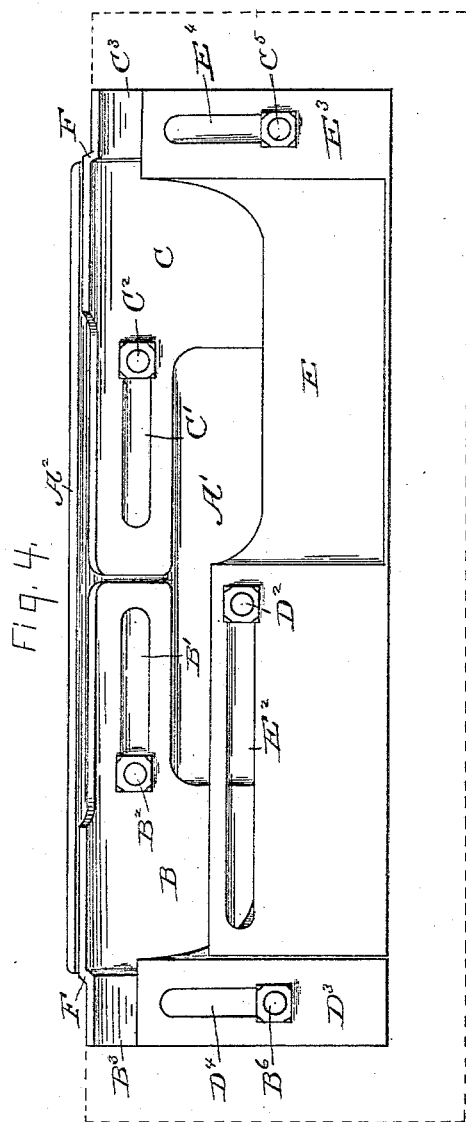
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(No Model.)

3 Sheets—Sheet 3.

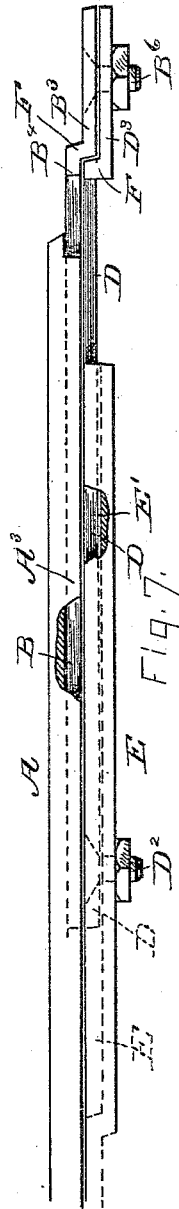
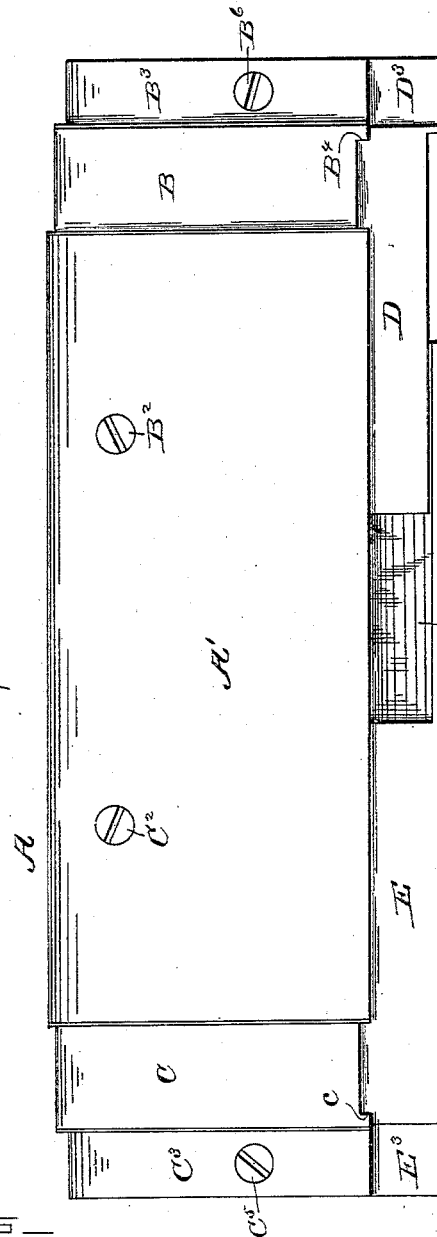
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Fig. 6.



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# UNITED STATES PATENT OFFICE.

WILLIAM C. METZNER, OF CHICAGO, ILLINOIS.

## STOVE-BACK.

SPECIFICATION forming part of Letters Patent No. 381,713, dated April 24, 1888.

Application filed June 25, 1887. Serial No. 242,504. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. METZNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stove-Backs; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of stove-backs which are made adjustable as to length and height, in order that they may be fitted into stoves having fire-pots of different sizes.

In the accompanying drawings, Figure 1 is a rear view of the main plate. Fig. 2 is a similar view with the end plates in place upon the main plate. Fig. 3 shows the front side of the bottom plates detached and separated from each other. Fig. 4 is a rear view of the complete back. Fig. 5 is a view of the lower plates joined to each other, but detached from the other parts and reversed. Fig. 6 is a front view of the complete back. Fig. 7 is a view of one end of the lower edge of the back, the front side being turned upward.

The main plate (marked A in the drawings) is composed of the broad flat part A', a rearwardly-curved upper flange, A<sup>2</sup>, and the rearwardly-directed flange A<sup>3</sup> along the lower edge, and at a short distance from the left end in Fig. 1 the upper portion of the part A' is provided with a bolt-hole, A<sup>4</sup>. At the opposite end there is a similar hole, A<sup>5</sup>.

B is the end plate applied at the left in Fig. 2. The main portion of it is shaped to conform to the rear surface of the plate A, and is of proper width to leave its lower edge lie against the flange A<sup>3</sup> and be covered thereby, while its upper edge is even with the rearwardly-directed upper edge of the plate A and covered thereby. Said flange A<sup>3</sup> should extend rearwardly a distance equal to the thickness of the said plate B, so as to make said plate and flange even at the rear of the back. At the height of the hole A<sup>4</sup> the plate B is provided with a horizontal slot, B', and a bolt, B<sup>2</sup>, passes through said slot and hole A<sup>4</sup> and

binds the plate B to the plate A. The lower portion of the plate B is not bolted to the plate A, but merely rests against the flange A<sup>3</sup>, by which its corners are prevented from moving downwardly, and the part A' prevents the corners from turning upward; hence, though there is but one bolt used to secure the plate B, said plate cannot rotate upon said bolt. In other words, there is a channel between the part A' and the flange A<sup>3</sup>, into which the plate B is bound by the bolt B<sup>2</sup>, and the joint between the faces of the plates A and B is covered above and below. A vertical strip about an inch wide, (marked B<sup>3</sup>.) at the outer end of the plate B, is set back a little to make a depression to receive the edges of the usual end lining of the fire-pot.

The flange A<sup>3</sup> is broken away a little at the end of the plate A, and the lower edge of the plate B is extended downwardly past the end of said flange even with the bottom of the plate A, thus forming a shoulder, B<sup>4</sup>, to lie against the end of the flange A<sup>3</sup>. This limits the movement of the plate B inward over the plate A. To make less weight of metal, the inner portion of the plate B may be cut away, as shown in the drawings.

Opposite the plate B a plate, C, is applied to the other end of the plate A. It is of the same shape as the plate B, excepting that its parts are transposed from right to left. The horizontal slot is marked C', and the bolt passing through said slot and the plate A is marked C<sup>2</sup>, while the strip which is set back at the outer end is marked C<sup>3</sup>, and the shoulder at the lower edge is marked c.

Fig. 2 of the drawings shows the end plates, B and C, set inwardly to their farthest limit. After releasing the bolts they may each be moved outwardly a distance equal to the length of the slots. The depression over the strip B<sup>3</sup> and the similar depression over the strip C<sup>3</sup> are always outside of the ends of the plate A to receive the edges of the end lining, as aforesaid.

The parts thus far described may be used as a back when it is desired to have only horizontal adjustability.

To afford vertical adjustability, the bottom plates, D and E, are added to those already described. These bottom plates are narrower

than the plates A B C, and the main part of the plate E is about as long as the plate A, while the plate D is only about half that length.

From about the middle of the front face of the plate E to its left end said plate is provided with a channel, E', wide and deep enough to receive the main portion of the plate D. In said channel E' a horizontal slot, E<sup>2</sup>, is cut through the plate E. Opposite said slot a hole, D', extends through the inner end of the plate D, and a bolt, D<sup>2</sup>, passes through said slot and hole and binds said plates together, and the sides of the channel E' prevent the plate D from rotating on the bolt D<sup>2</sup>. After loosening said bolt the plate D may be moved horizontally within the channel E'. The outer end of plate D is continued in an upwardly-extended strip, D<sup>3</sup>, lying behind the strip B<sup>2</sup>, and set back to make room for the latter. Said strip D<sup>3</sup> is provided with a vertical slot, D<sup>4</sup>, and opposite thereto a hole, B<sup>5</sup>, extends through the strip B<sup>3</sup>, and a bolt, B<sup>6</sup>, passes through said slot and hole and binds said plate D to the plate B. The outer or right end of the plate E is continued in an upwardly-extended strip, E<sup>3</sup>, lying behind the strip C<sup>3</sup>. Said strip is provided with a vertical slot, E<sup>4</sup>, and opposite thereto a hole, C<sup>4</sup>, extends through the strip C<sup>3</sup>, and a bolt, C<sup>5</sup>, extends through the said slot and hole and binds said plates E and C together. After loosening the bolts C<sup>5</sup> and B<sup>6</sup> said plates D and E may be raised or lowered

with reference to the other plates, thus increasing or decreasing the height of the back. To lengthen the back when all the plates are used, the bolts B<sup>6</sup>, B<sup>2</sup>, and C<sup>2</sup> are to be loosened. The plates D and E are further held against rotation on the bolt C<sup>5</sup> by the binding produced by the meeting of the webs F, which unite the strips B<sup>3</sup>, C<sup>3</sup>, D<sup>3</sup>, and E<sup>3</sup> to their respective plates.

I claim as my invention—

The combination, with the main plate having the rearwardly-curved upper edge and the rearwardly-directed flange at its lower edge, of slotted end plates lying between said rearwardly-curved upper edge and said flange, and each secured to said main plate by a bolt, and two overlapping bottom plates, one of which is channeled to receive the other, (the sides of the channel of the former engaging the edges of the latter,) and which are bound together adjustably by means of a bolt passing through a slot and hole in said plates, and each having a vertical slot at its outer end through which a bolt passes and secures it to the adjacent end plate, substantially as shown and described.

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

WILLIAM C. METZNER.

Witnesses:

EDWARD J. ARDLICK,  
CYRUS KEHR.