

(No Model.)

2 Sheets—Sheet 1.

E. H. HEADFORD.
ADJUSTABLE FIREBACK.

No. 578,331.

Patented Mar. 9, 1897.

Fig. 1.

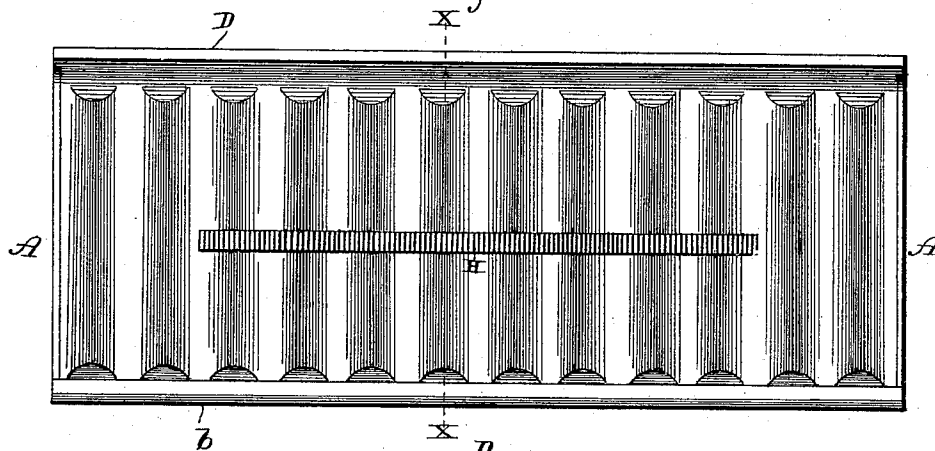


Fig. 2.

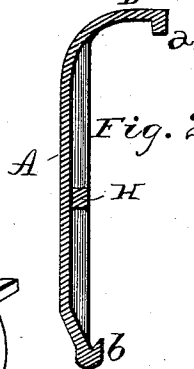


Fig. 3.

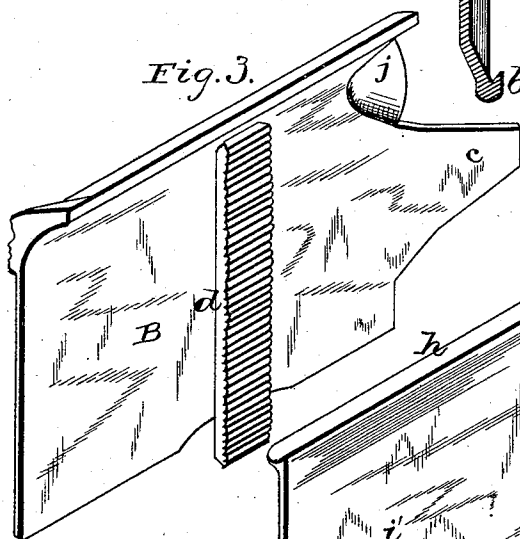
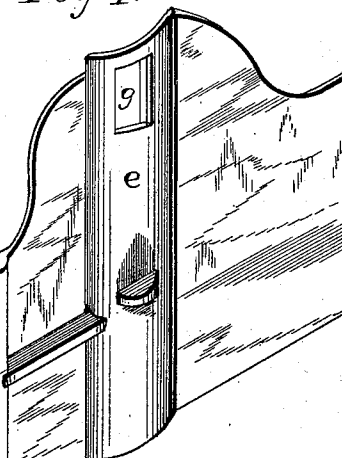


Fig. 4.



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BY J. M. John

ATTORNEY.

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Fig. 5.

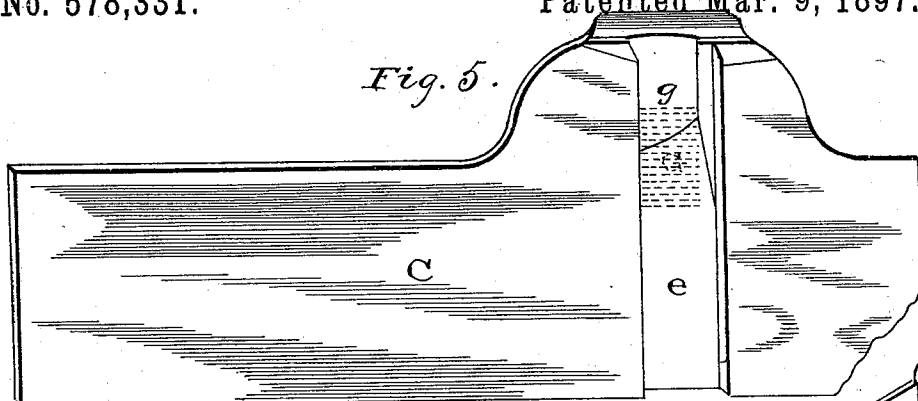
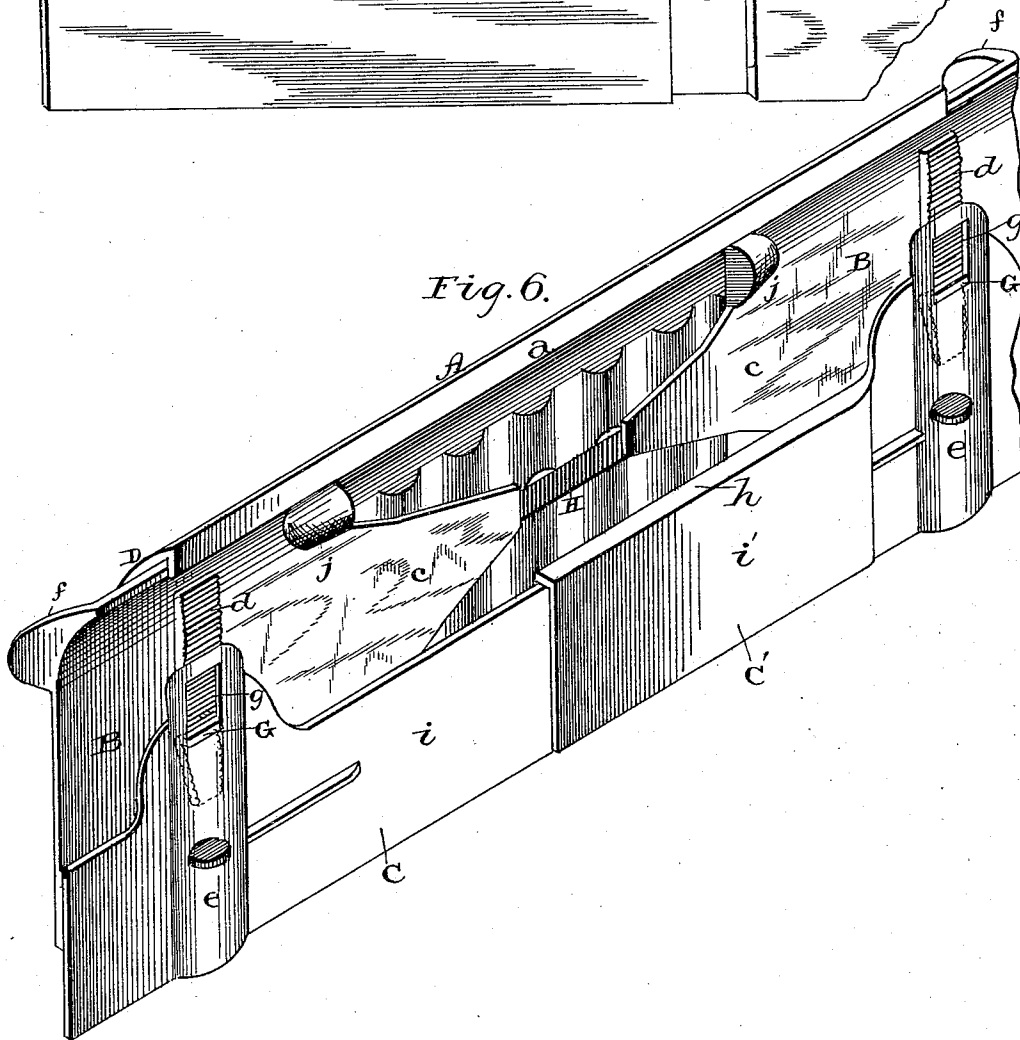


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD H. HEADFORD, OF DUBUQUE, IOWA, ASSIGNOR TO THE SCHREIBER
& COUCHAR MANUFACTURING COMPANY, OF SAME PLACE.

ADJUSTABLE FIREBACK.

SPECIFICATION forming part of Letters Patent No. 578,331, dated March 9, 1897.

Application filed July 6, 1896. Serial No. 598,106. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. HEADFORD, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Adjustable Firebacks; 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.

This invention relates to that part of a cook-stove commonly known as a "fireback;" and the object of the invention is to produce a fireback which may be easily and quickly adjusted to stoves of varying sizes and without the use of bolts or screws.

The invention will be fully hereinafter described, reference being had to the accompanying drawings, in which—

Figure 1, Sheet 1, is a rear elevation of the main plate of the fireback. Fig. 2 is a transverse section of the same in the line X X. Fig. 3 is a rear view in perspective of one of the end plates. Fig. 4 is a similar view of one of the bottom plates. Fig. 5, Sheet 2, is a similar view at a different angle of the other bottom plate. Fig. 6 is a similar view of the whole fireback put together as in use.

Similar letters of reference indicate corresponding parts.

In the drawings, A designates the main plate, constituting the principal part of the fireback, exposed directly to the fire in the combustion-chamber of the stove. This is preferably corrugated, as shown, and at the upper edge is curved back, as clearly shown, the curved flange D being adapted to extend over the oven-plate a short distance and prevent the falling of ashes between the fireback and the oven. This flange terminates in a downwardly-extending flange a, which helps to retain the end plates and which rests upon the oven-plate (not shown) when in position. The straight bottom edge of the main plate is provided with a retaining-flange b for the other edge of the end plate, forming by preference a beveled groove, as shown. Along the middle of the main plate on the back side is formed a rib H with a plane outer face to

serve as a bearing for the flexible tailpieces of the end plates.

The adjustable end plates B B are alike in form, but made right and left, so as to be applied to opposite ends of the main plate. In cross-section they correspond very closely to the main plate, but are made to fit neatly in the space between the flanges a, D, and b. The inner end of each plate terminates in a rather narrow tail c, which has a slight forward curvature toward the main plate, so that when slid into position the tailpiece is sprung backwardly a little, and the tension thus produced serves to hold the end plates in any desired position. In practice this tension is not so great, however, that the end plates cannot be moved in and out by the hands alone, so that the adjustment of the fireback to different lengths of combustion-chamber is easily and quickly effected. A lug f on each end plate engages the end of the main plate and limits the inward sliding of the end plates. Across each end plate, near the middle, is a beveled rib d to engage with a corresponding groove e in each of the bottom plates C and C', the outer ends of the bottom and end plates being continuous when connected. The inner ends overlap, the part i of the plate C passing under the offset part i' of the plate C', which has a forwardly-projecting top flange h, overlapping the upper edge of the part i. In the upper part of each groove e is an opening g, through which is slipped a tapered key or wedge G, having a suitable gib-head. An inclined seat for the wedge is formed in each groove.

A notched or roughened surface for both the beveled rib d and the wedge G is represented in the drawings. This is not indispensable, however, as the wedge holds securely enough on a plane surface.

The parts of the fireback are very quickly and easily connected and adjusted, the endwise adjustment being performed by the hands alone, or, in the event of the parts sticking from rust or otherwise, by rapping lightly on the lugs j j, formed thereon for that purpose. In the same manner the bottom plates are adjusted up and down, after loosening the keys and fastened, where desired by driv-

ing up the keys. In putting together in the first place the end plates are first slid on the main plate, and then the bottom plates on them, the plate C first, of course.

5 The construction is designed to avoid the inconvenience incident to the use of bolts and the like for fastening the adjustable parts in position, on the one hand, and the expense and difficulty connected with the manufacture of any other kind of boltless adjustable
10 fireback with which I am familiar, as well as the difficulty of adjustment of such firebacks when made. This in practice often results in the breakage of the fireback, since it is almost
15 impossible to fit their parts together so nicely that they will slide easily on each other.

In all other extension-backs of this kind the main plate when exposed to much heat bulges and warps away from the extension-wings.
20 The bottom flange in my device overcomes this defect. The marginal flange strengthens the main plate, prevents bulging or warping thereof, and retains the end plates and bottom extension-pieces in their proper position.
25

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fireback, the combination of a main
30 plate having marginal, longitudinal flanges to retain the end plates, and end plates adapted to slide freely between said flanges and having a flexible tailpiece bent slightly toward said main plate and bearing on the same when
35 in position, whereby the end plates are forced against said retaining-flanges elastically, substantially as described.

2. In a fireback, the combination of a main plate having marginal, longitudinal retain-

ing-flanges for end plates, and a longitudinal
40 bearing-rib near the middle thereof, of end plates fitting movably between said flanges, and having each a tailpiece normally bending slightly toward said main plate, and when
45 in position bearing flexibly against said bearing-rib, substantially as and for the purpose set forth.

3. In a fireback, the combination of a main plate having marginal, longitudinal, beveled
50 flanges to retain end plates, and end plates adapted to slide between said marginal flanges loosely except as pressed away from said main plate and into closer contact with its
55 flanges, and having a backwardly-extending projection bearing on some plane portion of the main plate and tending by the deflection of some part of said end plates to force them outwardly against said flanges, substantially as described.

4. In a fireback, the combination of a main
60 plate having longitudinal retaining-flanges for end plates and a longitudinal bearing-surface for a flexible portion of said end plates, a pair of end plates fitting movably in
65 said flanges, and having each a flexible, inwardly-bent tailpiece impinging on said bearing-surface, and dovetailed transverse rib to engage a bottom plate, a pair of bottom plates engaging said end plates by dovetailed
70 grooves, and tapered wedges or keys to retain them in position, substantially as and for the purpose set forth.

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

EDWARD H. HEADFORD.

Witnesses:

J. W. COUCHAR,

J. R. LINDSAY.