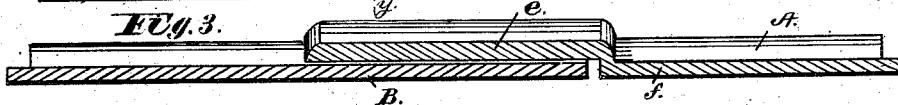
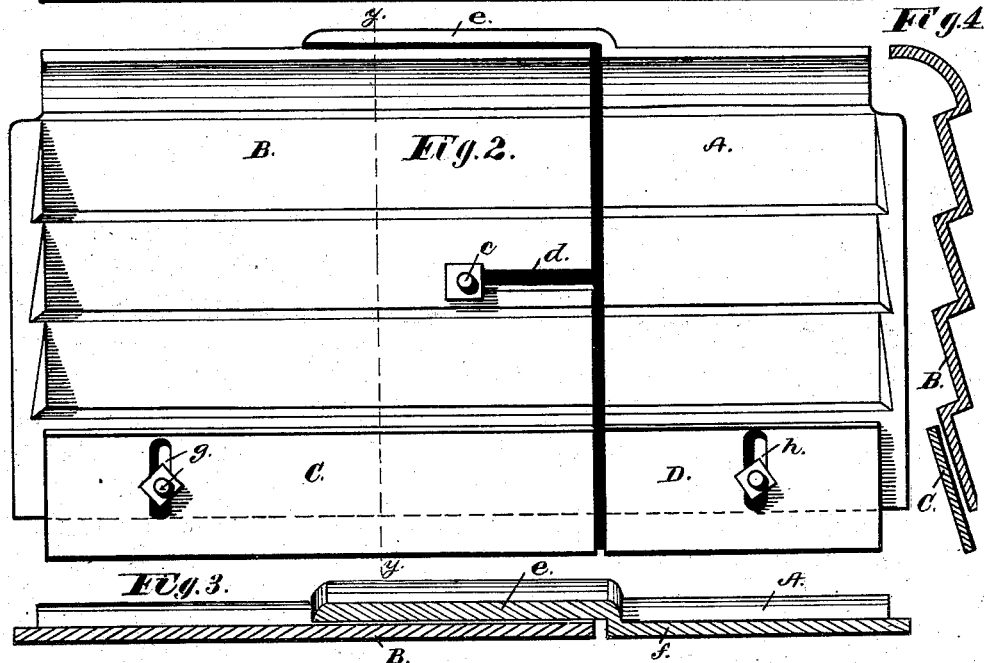
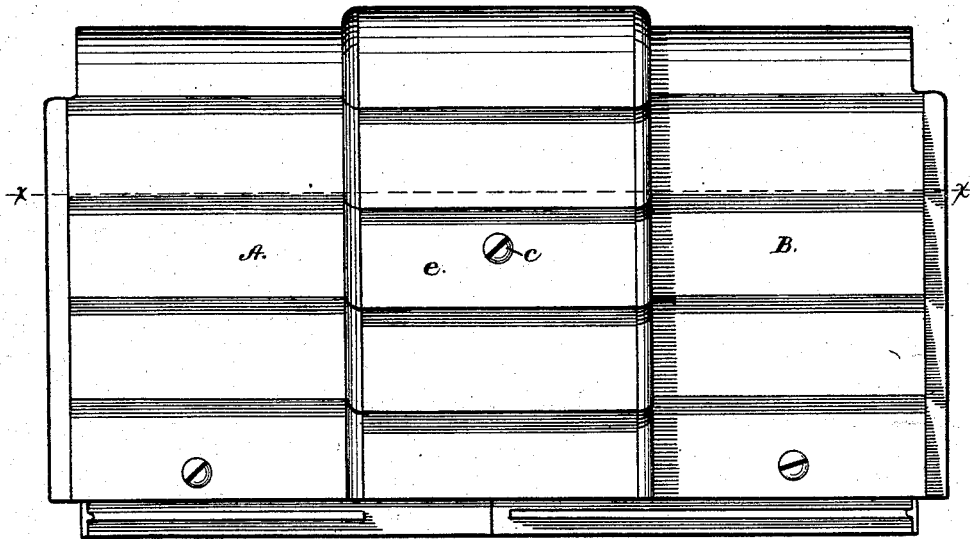


J. E. BOYER.
Fire-Back.

No. 217,443.

Patented July 15, 1879.

Fig. 1



Witnesses,
Chas. M. Peck
P. H. Guncel.

Inventor,
Josiah E. Boyer
by Peck & Ritchie
his Attys;

UNITED STATES PATENT OFFICE.

JOSIAH E. BOYER, OF DAYTON, OHIO.

IMPROVEMENT IN FIRE-BACKS.

Specification forming part of Letters Patent No. **217,443**, dated July 15, 1879; application filed January 11, 1879.

To all whom it may concern:

Be it known that I, JOSIAH E. BOYER, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Fire-Backs; and I do hereby declare the following to be a full, clear, and exact description of the same.

The object of my invention is to produce an improved fire-back for cook-stoves which shall be adjustable, so as to fit fire-pots or fire-boxes of various widths and depths.

The novelty consists in the construction and relative arrangement of the parts forming the fire-back, as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 is a front elevation of my improved fire-back. Fig. 2 is a rear view of the same. Fig. 3 is a longitudinal sectional view through the line *x x* of Fig. 1. Fig. 4 is a transverse sectional view through the line *y y* of Fig. 2.

To construct my fire-back I take two castings, A and B, of the shape indicated, which, when united, form a fire-back having in transverse section a serrated form, as shown in Fig. 4. These portions fit upon each other—that is, their ends are overlapped—and they are united by a central clamping bolt or screw, *c*, which passes through a horizontal slot, *d*, in the portion B, as shown in Fig. 2. The overlapping portion *e* of the casting A is raised above the plane of the portion *f*, as seen in Fig. 3, thus forming, when the pieces A and B are united, a panel, *e*, upon the fire-back, as indicated in Fig. 1, and thus bringing the portions B and *f* in the same plane. This construction forms a fire-back, which, by sliding the parts upon each other, can be lengthened or shortened to fit fire-boxes of various widths.

To adjust the parts the nut upon the screw-bolt *c* is loosened, so that the parts can slide upon each other to effect the proper adjustment, and then the nut is screwed down to clamp the parts together.

To further increase its adaptability to fire-boxes of different depths, I apply adjustable

extension-pieces C and D to the inner lower edges of the portions B and *f*, as seen in Fig. 2. These pieces are flat castings, of a length corresponding to that of the respective portions upon which they are fitted. They have transverse vertical slots *g* and *h* through them, by which they are attached with screw-bolts to the portions B and *f*, as shown in Fig. 2. As can be readily understood, these pieces are capable of vertical adjustment upon the fire-back, so as to increase or diminish its width. If desired, these pieces C and D can be made to overlap each other, as indicated in Fig. 2, in which case the overlapping portion of the piece D might fit either at the rear side or between the extension-pieces and the fire-back. The latter arrangement is that shown in the drawings.

By the foregoing construction I provide a simple and durable fire-back, capable of adjustment both lengthwise and transversely, or both in its length and its width.

I am aware that it is not new to construct fire-backs of separate pieces which are adjustable upon each other, one or more of such pieces being bent to overlap an adjacent part, and consequently I do not claim, broadly, an extensible fire-back thus constructed.

I claim as follows:

The herein-described fire-back, consisting of the longitudinally-corrugated portions A and B, the former of which is bent out of its plane to overlap the other and form a central raised corrugated panel, said portions having adjustably attached to their lower rear portions extensible sections C and D, the whole constructed and united as described, and forming a fire-back capable of adjustment longitudinally and transversely, as set forth.

Witness my hand this 26th day of December, A. D. 1878.

JOSIAH E. BOYER.

Witnesses:

PATRICK H. GUNCKEL,
WM. RITCHIE.