

(No Model.)

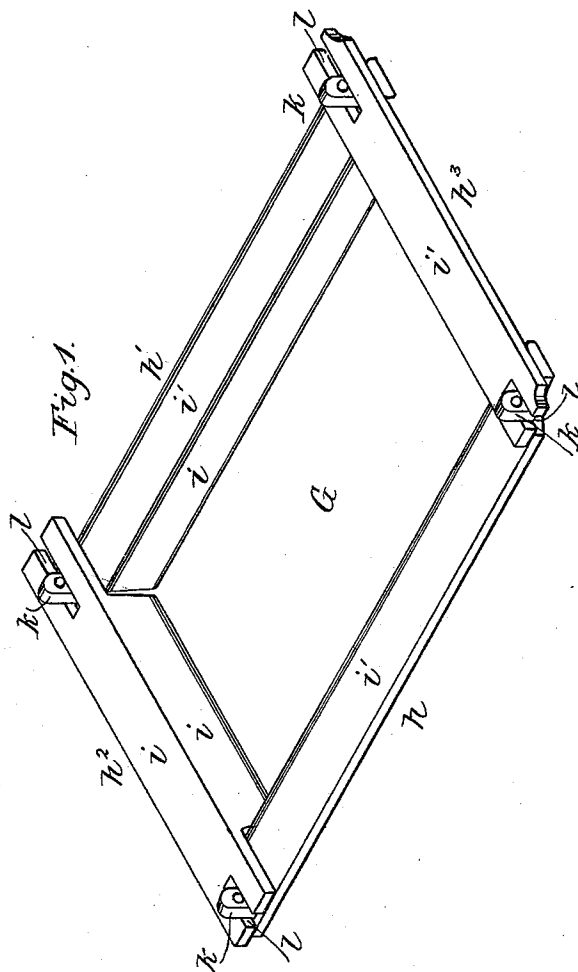
2 Sheets—Sheet 1.

H. EIBEN.

BRICK HOLDER FOR STOVES, RANGES, &c.

No. 518,056.

Patented Apr. 10, 1894.



Witnesses:
O. Sundgren
Chas. E. Peters

Inventor:
Henry Eiben
by attorney
Wittm & Son

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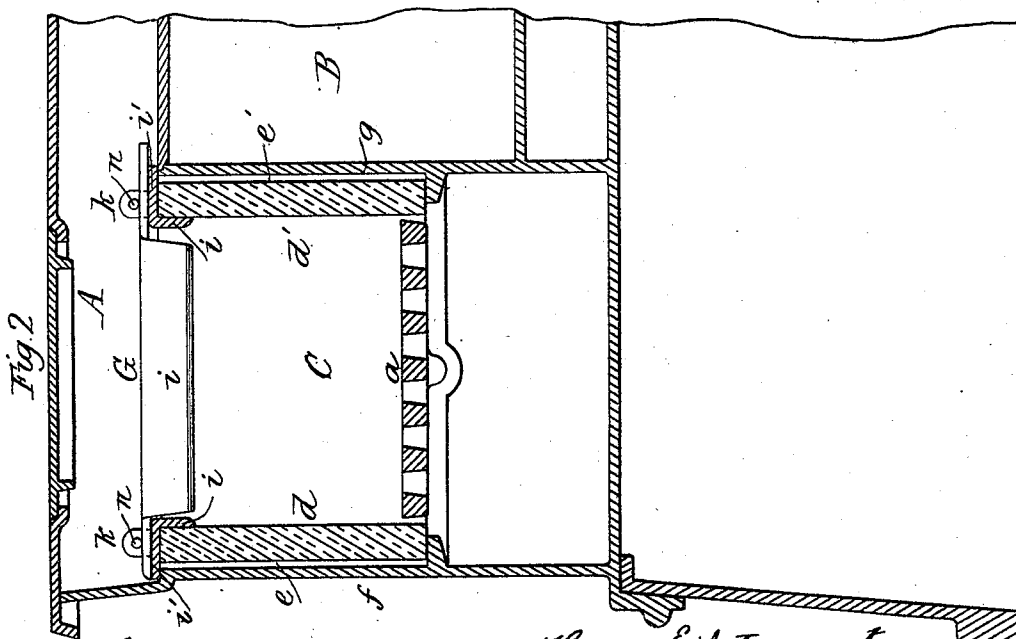
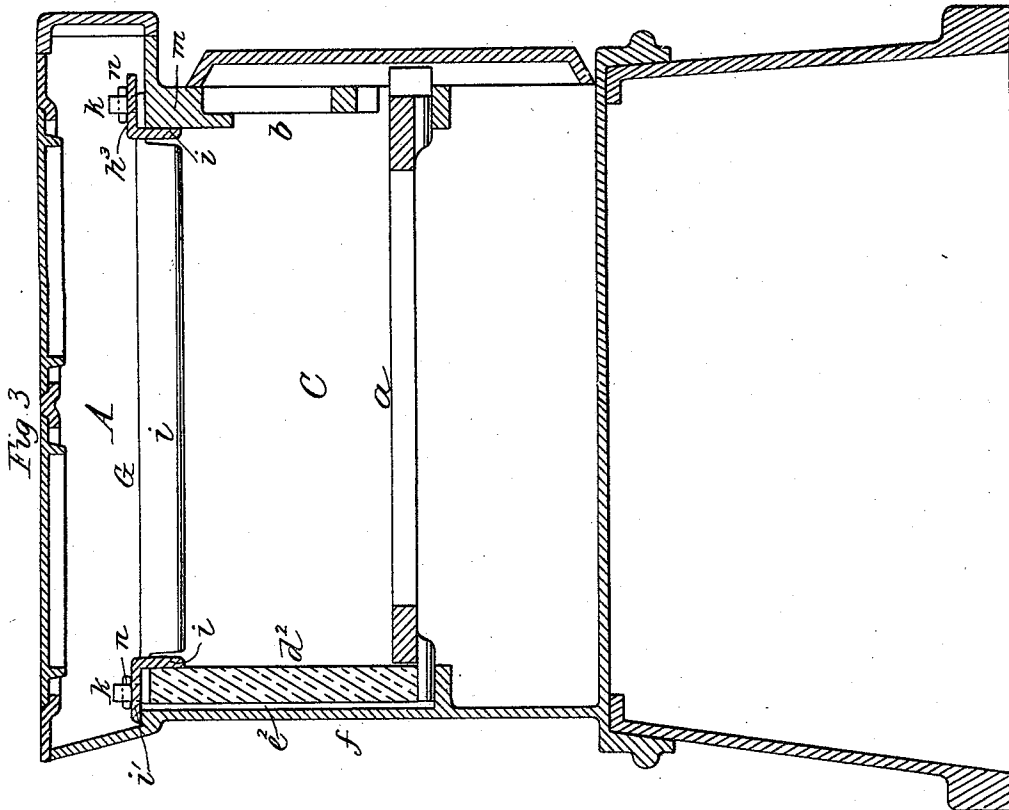
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Witcomb & Brown

UNITED STATES PATENT OFFICE.

HENRY EIBEN, OF NEW YORK, N. Y.

BRICK-HOLDER FOR STOVES, RANGES, &c.

SPECIFICATION forming part of Letters Patent No. 518,056, dated April 10, 1894.

Application filed December 7, 1893. Serial No. 492,981. (No model.)

To all whom it may concern:

Be it known that I, HENRY EIBEN, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Brick-Holders for Stoves, Ranges, &c.; 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.

My invention relates to the fire-brick and other linings of stoves, ranges, furnaces, &c., and the object of the invention is to provide a device for holding or retaining the fire-brick or other lining in position at the top, and also to cover the spaces between the linings and the oven or other plates of the stove and thereby prevent ashes, cinders, &c., from getting between the linings and the plates of the stove.

It frequently happens that by the accumulation of ashes, cinders, &c., in these spaces the fire-brick or other linings are broken, and in case the oven plate is broken or cracked the ashes are apt to sift into the oven and get into the food. By my invention these accidents are rendered impossible, and not only will the fire-brick and other linings be much easier put into, fastened and retained in the fire chambers, but it will be impossible for any ashes, dust or cinders to get in the spaces around the linings.

The invention consists of a frame made of metal, say cast-iron, and composed of sections shaped to conform to the side walls of the fire-chamber, and provided with devices for fastening them together, each section being of such a shape in cross-section as to fit against the face of the lining at the top and also to extend over the top of the lining and rest on the plates or other parts of the stove adjacent to the top of the lining, and thereby cover the spaces between the linings and the walls of the stove.

It further consists in the combination with the linings of stoves, furnaces, ranges, and other cooking and heating apparatus, of a holder placed against and over the linings to hold and retain the linings in position, the said holder consisting of a frame composed of sections adapted to be adjusted and fastened

together to form a brace for the tops of the linings.

In the accompanying drawings:—Figure 1 represents a perspective view of the holder, shown as an article complete in itself ready to be applied to a stove; Fig. 2 a cross-section of the fire chamber of a stove with the holder, partly in section applied to hold the linings and cover the spaces between the linings and the walls of the stove. Fig. 3 is a longitudinal section of the same fire chamber as Fig. 2, but showing the same parts in another position.

Referring to the drawings, A indicates a portion of a stove-top, B a portion of the oven, and C the fire-chamber placed next to the oven and provided with a grate *a* and grate front *b* in the usual manner. The fire chamber is provided with a lining of fire bricks *d, d', d''* in the usual manner. Other linings may however be substituted for these fire bricks as my invention is equally applicable to all linings, as well as to fire chambers of any shape. These fire bricks are so arranged that spaces *e, e', e''* exist between them and the walls or plates *f f* of the fire chamber, and also the oven plate *g*, and into these spaces ashes, dust, cinders, &c., accumulate and not only interfere with the free radiation of the heat, but also in the course of time press against the linings and tend to force them from their position and also frequently to break them. It is these accidents which the holder G is intended to prevent. This holder is shown complete in Fig. 1 and it consists of a frame composed of sections *h h' h'' h'''*, each of which in this instance is right angular in cross-section forming thus flanges *i i'*. The front and back sections *h h'* are provided at or about the ends with upward projecting lugs *k* with holes in them to receive a key or pin *n*, and the end sections are provided with open slots *l* at the ends which are arranged to fit over the said projections. As the slots and projections fit easily together a certain amount of lateral and longitudinal adjustment is obtained and thereby the holder can be adjusted or fitted to the slight inequalities that exist in stoves and linings of the same size or number.

The holder it is intended shall be made in sizes corresponding to the stoves.

The application of the holder to the stove is by placing the several sections separately on top of the corresponding linings so that the flange *i* will rest against the face of the linings, and the flange *i'* will project over the tops of the linings and rest on the top edges of the plates including the oven-plate as shown in Figs. 2 and 3. One section *h*³ is placed over the plate *m* above the front grate as shown in Fig. 3 in order in this instance to complete the frame and make each section brace the other. When thus adjusted the flanges *i'* of the sections completely cover the spaces between the linings and the walls or plates, thereby preventing anything from filling in the spaces. As the sections when put together and fastened with pins or keys *n* form a strong metallic frame around the top of the linings, the latter are held firmly in place. While the sections in this case form a rectangular frame, it is obvious that by changing the shape of the sections they may be adapted to circular, oval and other shaped fire chambers, and it is to be understood that my invention includes holders of any shape and made of any number of sections to adapt them to fit the fire chambers and hold and protect the linings of any stoves, furnaces, ranges, or other heating or cooking apparatus. Furthermore, the frame or holder by bearing evenly and forcibly against the face of the linings prevents the linings from warping or becoming displaced or out of shape.

I claim—

1. As a new article of manufacture a holder for the bricks or linings of heating and cooking apparatus the same consisting of a plurality of sections each of which is composed of two flanges at about right angles to each other, the ends of connecting sections provided respectively with lugs and slots which are constructed and adapted to permit the holder to be adjusted to the inequalities in the bricks or linings, substantially as specified.

2. In combination with the plates or walls of a stove, and the bricks or linings of a fire chamber, a sectional holder for the linings consisting of a number of plates, each of which is composed of two flanges at or about the same angle to each other as the top and face of the lining, and having the ends provided with devices for fastening adjoining sections together and permitting the adjustment of the sections to irregularities in the linings, the said holder when in position adapted to hold the linings in place and also cover the spaces between the linings and the walls of the fire chamber, substantially as specified.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

HENRY EIBEN.

Witnesses:

ISAAC P. HUBBARD,
FREDK. HAYNES.