Sept. 10, 1929. J. Y. BROWN 1,727,960

OVEN

Filed Feb. 10, 1928

Fig. 1.

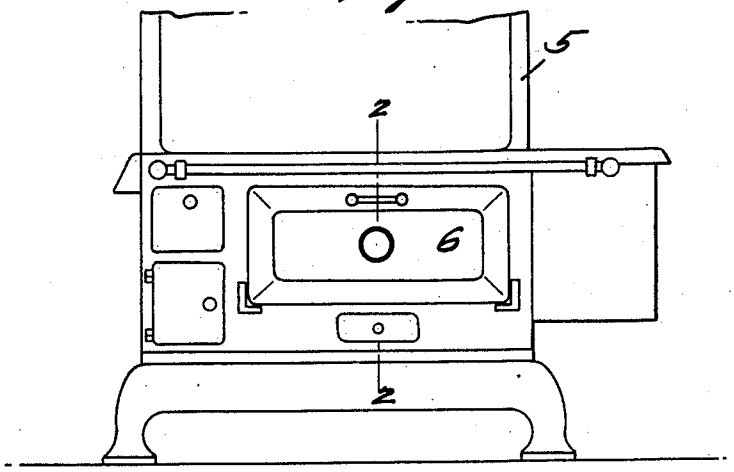


Fig. 2.

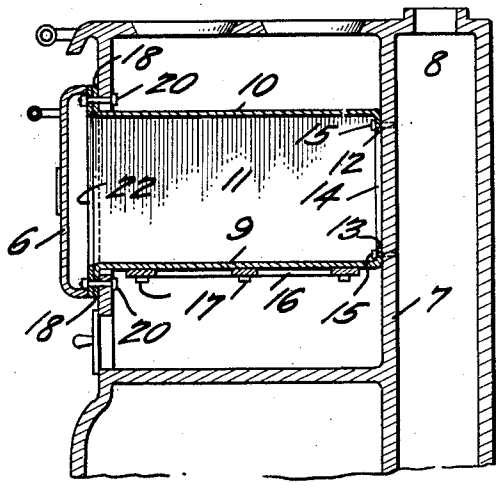


Fig. 3.

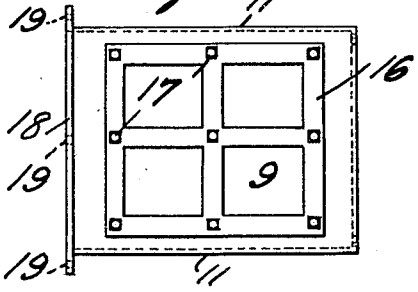
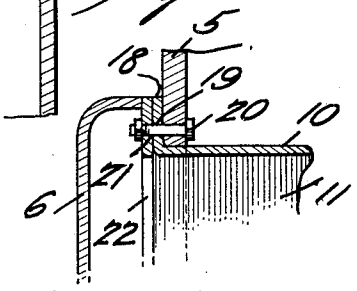


Fig. 4.



James Y. Brown INVENTOR.

BY Hanks & Alderman

ATTORNEY.

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UNITED STATES PATENT OFFICE.

JAMES Y. BROWN, OF KNOXVILLE, TENNESSEE

OVEN

Application filed February 10, 1928. Serial No. 253,454.

This invention relates to stoves, and particularly to those in which ovens are installed.

It is an object of this invention to produce a stove having an oven which is removably attached in place in order that it may be readily dislodged for the purpose of repair or the substitution of a new oven for one that has become useless.

Ovens are usually made of sheet metal, and being subject to high degrees of heat, they are apt to warp and become distorted, and due to the presence of moisture, the metal may rust or otherwise deteriorate to an extent that replacement is desirable long before the other parts of a stove become unfit for use.

It is a further object of this invention, therefore, to produce a replacement oven and install it through the employment of removable anchoring devices, such as bolts or screws, as distinguished from rivets, spot welding or the like, employed in the conventional types of cooking stoves and the like.

It is furthermore an object of this invention to produce a replacement oven with door frame and rear wall anchorage whereby the same may be secured by fastenings to the door frame and back portion of the stove structure.

It is a still further object of this invention to produce an oven replacement having a reinforced bottom, the vertical area being less than the original for the installation in a stove or range.

It is furthermore an object of the invention to provide an oven for the purpose indicated, the ends thereof having oppositely bent flanges whereby the same can be expeditiously manufactured and installed and which will prove comparatively inexpensive.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in elevation of a front of a stove in which the invention is installed;

Figure 2 illustrates a sectional view on the line 2—2 of Fig. 1;

Figure 3 illustrates an underneath plan view of the oven; and

Figure 4 illustrates an enlarged detail view of the oven door, door frame and parts associated therewith.

In these drawings, 5 denotes a conventional type of stove or range having the usual door 6, a door support 22, a back wall 7 and flue 8.

The oven embodying the invention in the present showing is formed angular in cross section and consists of a bottom wall 9, a top wall 10, and two side walls, such as 11.

The bottom wall has an upwardly disposed flange 13, the top wall a downwardly disposed flange 12, and the side walls each has an inwardly disposed flange 14 and they are secured to the back wall of the range by removable fastenings 15, such as screws, bolts or the like. It is seen from an inspection of Fig. 2 that the depth of the flanges is not very great. Preferably they are just sufficient to effectively engage the anchors by which the oven is secured to the back wall, as it is the purpose of the inventor that the inner end of the oven should be open to as great an area as possible to permit heat radiating through the back wall to gain access to the oven.

The bottom or the bottom wall 9 of the oven is reinforced by a reticulated plate 16 and this plate may be secured to the replacement oven by fastenings 17, such as rivets, or it may be secured thereto by spot welding or the like, but the reinforcing plate serves to prevent buckling of the bottom and to strengthen the structure.

The front edge of the replacement oven at all of its sides is outwardly flanged, as shown at 18, and the flanges may have apertures, such as 19. The flanges fit against the front wall of the stove structure and fastenings 20, such as bolts, extend through apertures of the front wall, through apertures of the flanges of the oven, and through apertures 21 of a door frame 22 which bears against the

flanges 18, the door, of course, closing against the door frame.

It is desirable that the oven should be slightly less in height than the door opening, since clearance must be afforded for the reinforcing plate as the oven is installed or removed.

It will be obvious from an inspection of the drawing that the replacement oven when applied to a range in the manner indicated will not present undue material and that the oppositely extending flanges serve to reinforce the tubular replacement, while at the same time permit access to the bolts whereby the oven is firmly anchored but removably secured in place to possess the advantages initially set forth.

It will be noted by reference to the drawings that the oven which is placed on the market as an independent article of manufacture for replacement of originally burned out ovens has at its front an outwardly extending flange which provides means for attaching the same to the front wall of the stove, and that the inner open end of the transversely rectangular structure has an inwardly projecting flange, both of the flanges being apertured for the reception of attaching bolts. It may also be noted that the reinforcing open-work grating which is attached to the lower side of the oven as supplied for replacement necessitates forming the oven of slightly less depth than the original oven which it replaces and for this reason the vertical height of the oven is slightly less than the opening through the front wall of the stove.

I claim:

As an article of manufacture, a replacement casing for stoves and ranges to provide an oven consisting of an open-ended rectangular casing having at its rear an inwardly extending flange with bolt receiving apertures therethrough and at its front an outwardly extending flange with apertures therethrough, the apertures formed through the flanges being in register with apertures through the frame of the stove or range and door casing, a reticulated plate attached to the bottom of the replacement member, the vertical area of the replacement being such that it may be passed through the front opening of the stove or range prior to being secured in place.

JAMES Y. BROWN.