

G. E. CAMP.
FURNACE CASING RING.
APPLICATION FILED JULY 3, 1908.

944,257.

Patented Dec. 28, 1909.

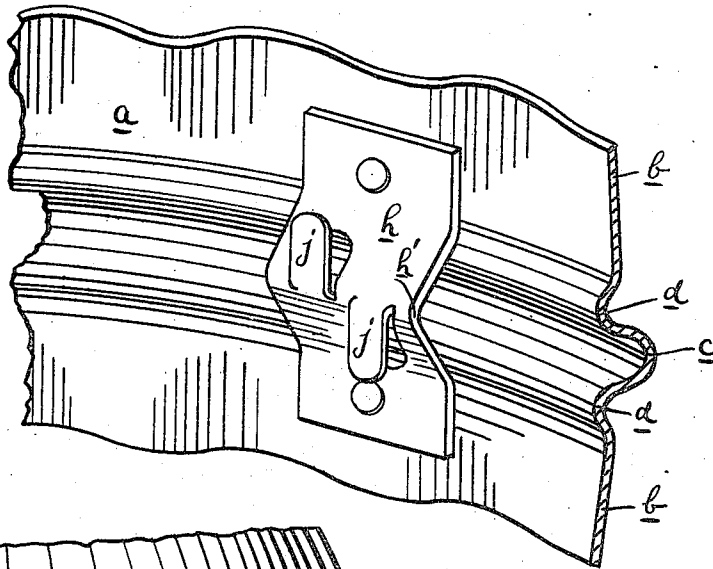


Fig. 1.

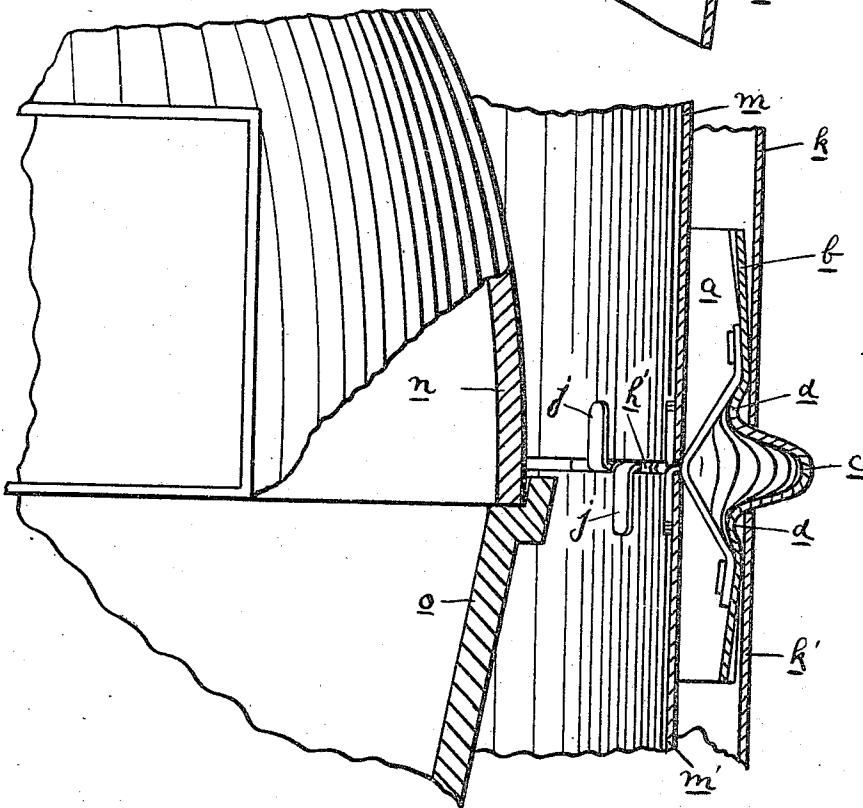


Fig. 2.

WITNESSES:
Geo. E. Rendell
Sarah E. Clark.

INVENTOR
Geo. E. Camp.
BY *Robert M. Martin & Son*
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE ERASTUS CAMP, OF UTICA, NEW YORK, ASSIGNOR TO INTERNATIONAL HEATER COMPANY, OF UTICA, NEW YORK.

FURNACE-CASING RING.

944,257.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed July 3, 1908. Serial No. 441,766.

To all whom it may concern:

Be it known that I, GEORGE ERASTUS CAMP, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Furnace-Casing Rings; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 the letters of reference marked thereon, which form part of this specification.

The object of my present invention is to provide an improved form of furnace casing ring, which adapts it to be made mainly from sheet material, gives strength and clearance, and provides a ring which is rapidly and cheaply made and well adapted to meet the numerous requirements of such a device.

Figure 1 shows a perspective view from the inner side of a small section of furnace ring of my present improved construction. Fig. 2 is a sectional view of a portion of a furnace showing the ring in use.

Referring to the reference letters in a more particular description, *a* indicates the furnace ring, which consists of oppositely extending flanges *b—b* with intermediate embossed outwardly projecting rib *c* and having the reverse curve grooves *d—d* at the base of the flanges *b* and adjacent to the base of the rib *c*. The edges of the flanges *b* are preferably corrugated, as shown particularly in Fig. 1, and turned inwardly slightly to give a somewhat double conical form to the ring. At suitable intervals on the inner face, the ring is provided with bracket pieces *h*, which are secured to the flanges *b—b* preferably by rivets and bent to form an inwardly projecting portion *h'* carrying adjacent to its apex upwardly and downwardly projecting ears *j* conveniently produced by being cut or severed from the body of the bracket piece and turned outwardly.

In use the outer furnace casing parts or shells *k* and *k'*, which are usually cylindrical, slip or fit over the flanges *b—b*, and if the diameters of these parts are not unduly reduced will fit down until the edges abut against the sides of the embossed rib *c*. The corrugated edges of the flanges *b—b* enable them to accommodate themselves more readily to inaccuracies in the size of the casing parts, and afford a better frictional contact between the ring and the casing.

The members *m—m'* of the inner furnace casing, which are also preferably cylindrical and of smaller diameter than *k* and *k'*, are adapted to engage in the pocket or recess between the ears *j* on the one hand and the wall of the bracket *h* on the other hand, whereby the edges of the inner casing are properly engaged and supported and the inner and outer casing effectively spaced and held to their spacing with reference to each other.

At *n* is shown the furnace dome and at *o* the furnace fire pot. The reverse curve grooves *d—d* in addition to strengthening the ring also afford a clearance as between the lower edge of the flange and the sides of the rib, which facilitate the edge of the casing fitting down closely and nicely onto the rib.

It is evident that modifications and changes in and from the construction herein described may be made without departing from the spirit of my invention and the subject matter intended to be covered by the claims.

What I claim as new and desire to secure by Letters Patent is:

1. A sheet metal furnace casing ring having oppositely extending flanges, an outwardly projecting embossed rib, and reverse grooves at the base of the flanges adjacent to the rib, substantially as set forth.

2. A sheet metal furnace ring having oppositely projecting flanges and embossed rib and an inwardly projecting bracket piece constructed and arranged to engage the outer surface of the inner section of a furnace casing and having means for engaging the inner surface of said section, substantially as set forth.

3. A sheet metal furnace ring having oppositely projecting flanges and embossed outwardly projecting rib, and inwardly projecting bracket pieces having means for engaging at both sides the edges of the upper and lower members of the inner section of a furnace casing, substantially as set forth.

4. The combination with the inner and outer sections of a furnace casing, of a casing ring having oppositely extending flanges to engage the outer casing with intermediate outwardly projecting embossed rib and reverse curve grooves at the base of the flanges, and inwardly projecting brackets having

means for engaging the upper and lower edges of the sections of inner furnace casing, substantially as set forth.

- 5 5. A sheet metal furnace ring having oppositely extending flanges, an outwardly projecting embossed rib, and interior bracket pieces opposite said rib, said bracket pieces each comprising an inwardly projecting portion adapted to engage the outer surface of
10 the inner section of a furnace casing, and oppositely projecting ears carried by the inner end of said inwardly projecting portion and adapted to engage the inner surface of said section, substantially as set forth.

6. A sheet metal furnace casing ring having oppositely projecting corrugated flanges, an intermediate outwardly projecting embossed rib and reverse curve grooves at the base of the flanges adjacent to the rib, substantially as set forth. 15 20

In witness whereof, I have affixed my signature, in presence of two witnesses, this 26th day of June 1908.

GEORGE ERASTUS CAMP.

Witnesses:

EMMA S. HESSE,
SARAH E. CLARK.