

J. B. PIERCE.  
JOINTS FOR HOT-AIR FURNACES.

No. 195,044.

Patented Sept. 11, 1877.

Figure 1

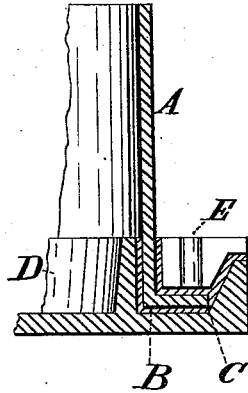
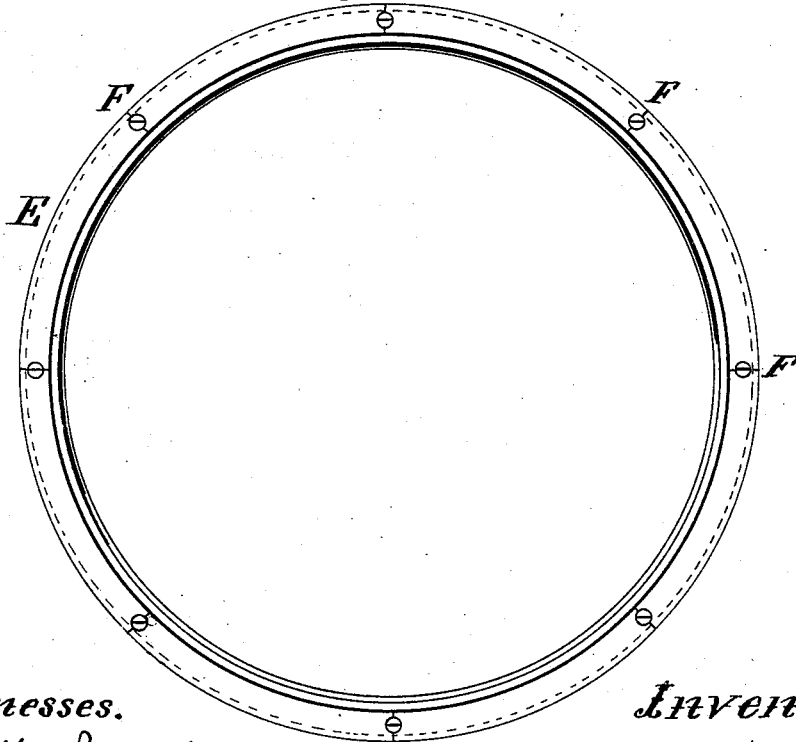


Figure 2



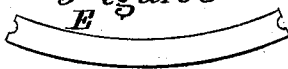
Witnesses.

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Figure 3



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN JOINTS FOR HOT-AIR FURNACES.

Specification forming part of Letters Patent No. **195,044**, dated September 11, 1877; application filed December 21, 1876.

*To all whom it may concern:*

Be it known that I, JOHN B. PIERCE, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Packing-Joints for Hot-Air Furnaces, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to afford a simple and efficient means for producing an air or gas tight joint for furnaces; and it consists of the upper and lower plates of a furnace or other heating device, having either a circular or other suitable form, and provided with a groove around or near the outer edges of the same, in combination with the sides of the furnace or stove, provided with a flange to fit in said grooves; also, the cement for sealing the joints above and below said flange, and a sufficient number of segments or pieces to fill the space above the flange, which pieces are held securely in place by means of screws, as will be more clearly hereinafter described.

In said drawings, Figure 1 represents a fragment of a furnace-plate, showing a section cut across the grooved part of the same, and through a small portion of the side or body of a furnace. It also shows an end view of one of the segments. Fig. 2 is a top view of one of the furnace-plates, showing the segments in place, and a cross-section through the side of

the furnace, (or rim that surrounds it;) and Fig. 3 represents a top view of one of the segments.

A represents a part of the side or body of a furnace or heating device. It is provided with a flange, B, made to fit into the bottom of the groove C, as shown, D being a fragment of the top or bottom of the furnace. E represents the segments or pieces for holding the parts together by means of the bolts F.

In putting the furnace together, a sufficient quantity of cement (which may be any of the well-known cements for the purpose) is put into the groove C, and the side or body of the furnace is placed so that the flange B thereon fits therein. Cement is placed above or on the top of said flange, and the parts E are brought firmly in place, as shown, by means of the screws or bolts F, thereby binding all the parts together and making a perfectly-tight joint, the surplus cement, if any, being forced out by the operation.

I claim as my invention—

In a furnace-joint, the part A, provided with a flange, B, in combination with the segments E, and the part D, having a groove, C, all cemented and fastened together, substantially as described.

J. B. PIERCE.

Witnesses:

JAMES SANGSTER,  
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