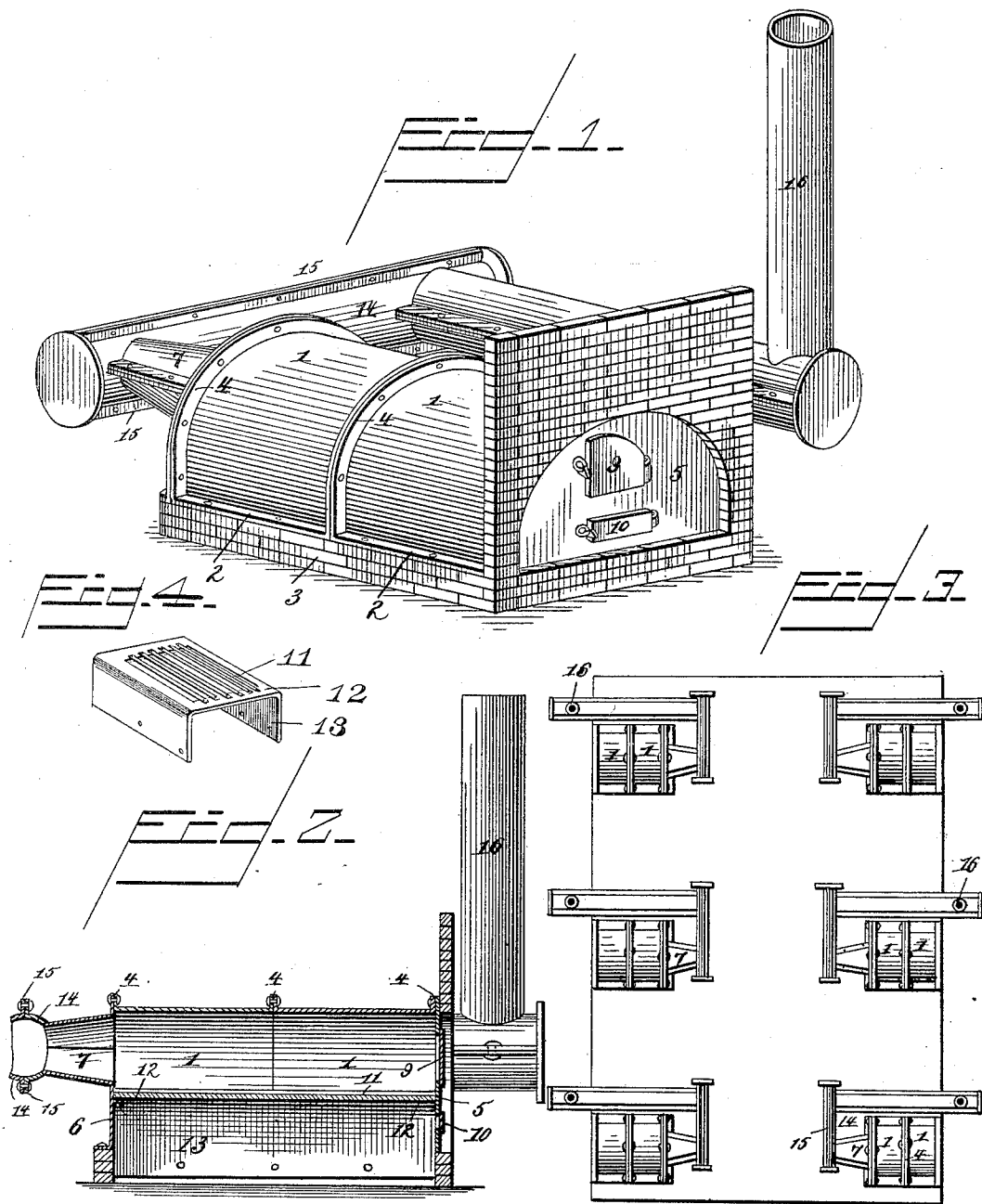


(No Model.)

J. H. JOHNSON & J. MORAN.
FURNACE.

No. 462,354.

Patented Nov. 3, 1891.



Witnesses

H. G. Dieterich

Wm. Bagges

*John H. Johnson and
James Moran*

By their Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN H. JOHNSON AND JAMES MORAN, OF ORANGE, TEXAS.

FURNACE.

SPECIFICATION forming part of Letters Patent No. 462,354, dated November 3, 1891.

Application filed February 27, 1891. Serial No. 383,029. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. JOHNSON and JAMES MORAN, citizens of the United States, residing at Orange, in the county of Orange and State of Texas, have invented a new and useful Furnace, of which the following is a specification.

This invention relates to furnaces; and it has for its object to construct a furnace which shall be simple, durable, and inexpensive, and the parts of which may be readily put together or separated, as may be desired.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a perspective view of a furnace constructed in accordance with our invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a plan view showing a series of our improved furnaces as they will be preferably arranged for operation. Fig. 4 is a detail perspective of the grate and its supports.

Like numerals of reference indicate like parts in all the figures.

The body of our improved furnace is composed of a series of approximately semicircular plates 1 1, the lower edges of which are provided with flanges 2, by means of which they may be supported upon the base 3, to which they are bolted or otherwise suitably secured. The ends of said plates are also provided with flanges 4 to enable the meeting ends of said plates to be bolted together. The front plate 5 is in like manner secured to the front, and the rear plate 6 is similarly connected with the rear ends of the plate 1, the end plate 6 having a rearwardly-extending collar 7, with which the flue is connected. The front plate 5 is provided with doors 9 and 10, that communicate, respectively, with

the fire-box and the ash-pit. The latter is formed within the base below the grate-bars 11, which latter may be mounted upon or bolted to a plate 12, having downwardly-extending flanges 13, by means of which it may be secured to the sides of the base. The flue which is connected with the collar extending rearwardly from the rear end plate of the furnace is composed of semi-cylindrical plates 14, provided at their meeting edges with flanges 15 to receive bolts, by means of which they may be connected. The flue extends a short distance laterally and thence in a forward direction to the stack 16, which extends upwardly at the front end of the furnace.

In operation any desired number of our improved furnaces are arranged at the sides of a kiln or drying-house, as will be seen in the plan view, Fig. 3, of the drawings. These furnaces are exceedingly simple in construction and easily accessible for firing or for the removal of ashes.

Having thus described our invention, what we claim is—

The combination of the rectangular base, the casing composed of semicircular plates having flanges at their ends and lower edges, and the front and rear end plates provided, respectively, with doors and with a rearwardly-extending collar to which the flue is connected, and the grate-supporting plate having downwardly-extending flanges secured to the inner sides of the base, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOHN H. JOHNSON.
JAMES MORAN.

Witnesses:

J. S. BRICE,
L. G. CHAMBERS.