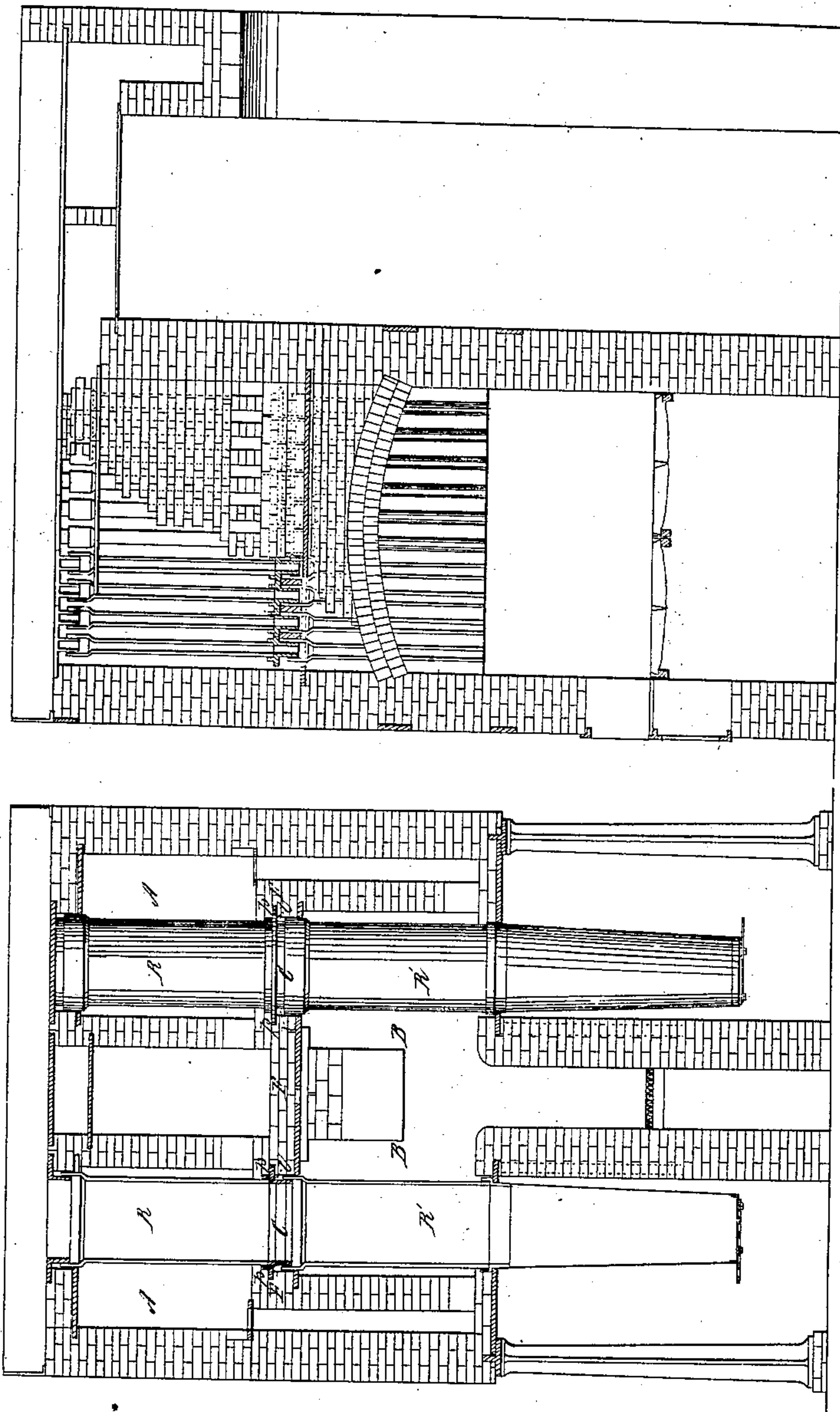


E. P. EASTWICK.
BONE BLACK KILN.

No. 60,492.

Patented Dec. 18, 1866.



Witnesses.
Geo. L. Welch
Andrew Long

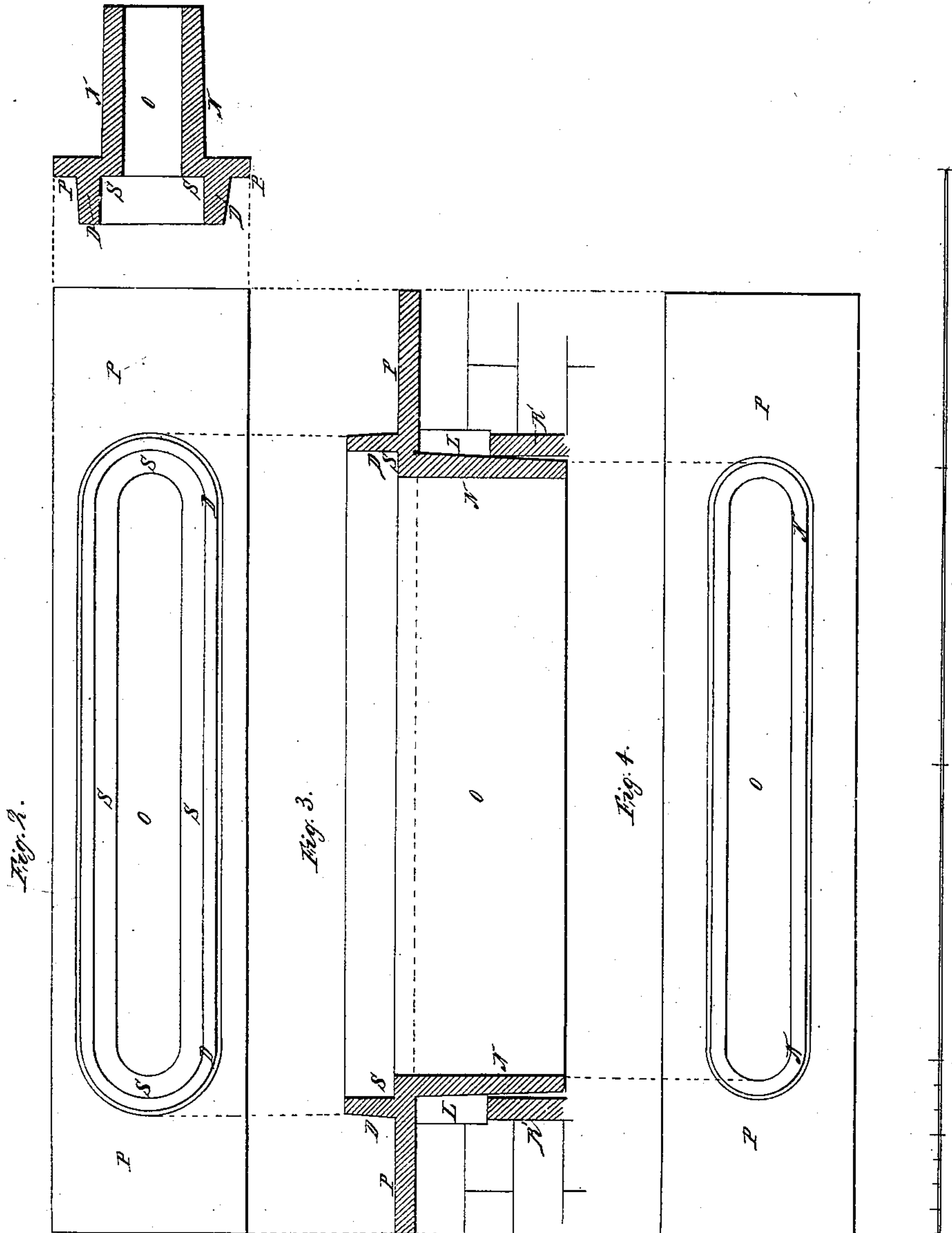
Inventor.
E. P. Eastwick

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2 Sheets—Sheet 2.

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Geo. S. Mel.
Andrew Longacre

Inventor.
Edw. P. Eastwick

United States Patent Office.

IMPROVEMENT IN BONE-BLACK KILNS.

EDWARD P. EASTWICK, OF BALTIMORE, MARYLAND.

Letters Patent No. 60,492, dated December 18, 1866.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD P. EASTWICK, of the city of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Bone-Black Kilns, used in the manufacture and refining of sugar, for the purpose of revivifying the animal charcoal used in the process, by reburning the same.

My invention consists in connecting two or more vertical retorts in such manner that the upper retort will not rest on the lower retort, but be independently supported.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, Plate I, Figure No. 1, represents a vertical section of a bone-black kiln, having upper chambers, A A, and lower chambers, B B, the former containing the upper retorts R R, and the latter the lower retorts R' R'. The upper retorts R R each set upon a bed-plate and adapter, C C, which consists of a flange, a rim, and a neck, and which rests by its flange, P P, in the floors, F F, of the upper chambers, A A, reference being had to Plate II, Figure No. 2, which represents said bed-plate and adapter horizontally on top; and to Plate II, Figure No. 3, which represents a vertical section of the same; and to Plate II, Figure No. 4, which represents the same horizontally as seen from beneath. This bed-plate and adapter may be an iron plate, with an opening, O, running through its centre, corresponding in dimension with the opening of the retort R, with a neck, N N, extending down three or more inches, and adapted to enter into the bell-end of the lower retort R'. On the upper side of the bed-plate and adapter is a rim, D D, two or more inches high, and sufficiently back from the opening O to form on the inside a socket, S S, to receive the upper retort R. In making the connection between the upper and lower retorts, the floor, F F, of the upper chamber (supported by iron braces or otherwise) is built with brick, close around the bell or upper end of the lower retort, R', one or more inches higher than the top of it, as represented in plate I, fig. No. 1, and Plate II, fig. No. 3. The bed-plate and adapter is then placed on the floor F F, on its flange P P, the neck N N, extending down into the bell or upper end of the lower retort, R', in such a manner that a space, I I, in Plate I, fig. No. 1, and L L, in Plate II, fig. No. 3, is left between the bottom of the flange of the bed-plate and adapter and the top of the lower retort, R', which allows expansion room for the latter when heated. The bottom of the upper retort R, resting in the sockets S S of the bed-plate, is luted and built around with brick. The lower retort, R', may not necessarily be bell-shaped at top, but of dimensions to admit of the bed-plate and adapter either on the inside or outside of its upper end. This bed-plate and adapter, or coupling, may be used with any number of retorts vertically connected. The advantages which this mode of connection possesses over others which have been used is, that the retorts may be so separated from each other as to allow the lower retort, which receives the greater heat, to expand independently, which makes it less liable to spring and crack, and renders the use of double-chambered kilns more practicable than when the retorts were otherwise connected as heretofore, and also insures greater durability and economy.

What I claim as my invention, and desire to secure by Letters Patent, is—

The connecting two or more vertical retorts by means of intervening bed-plates and adapters or couplings, resting in the floor of the upper chamber of the bone-black kiln, supporting the upper retorts independently, and allowing a separate expansion and contraction of the lower retorts, substantially as herein described.

EDWARD P. EASTWICK.

Witnesses:

GEO. S. WEST,
ANDREW LONGACRE.