

L. A. BOISSON.

Brick Kiln.

No. 31,150.

Patented Jan. 22, 1861.

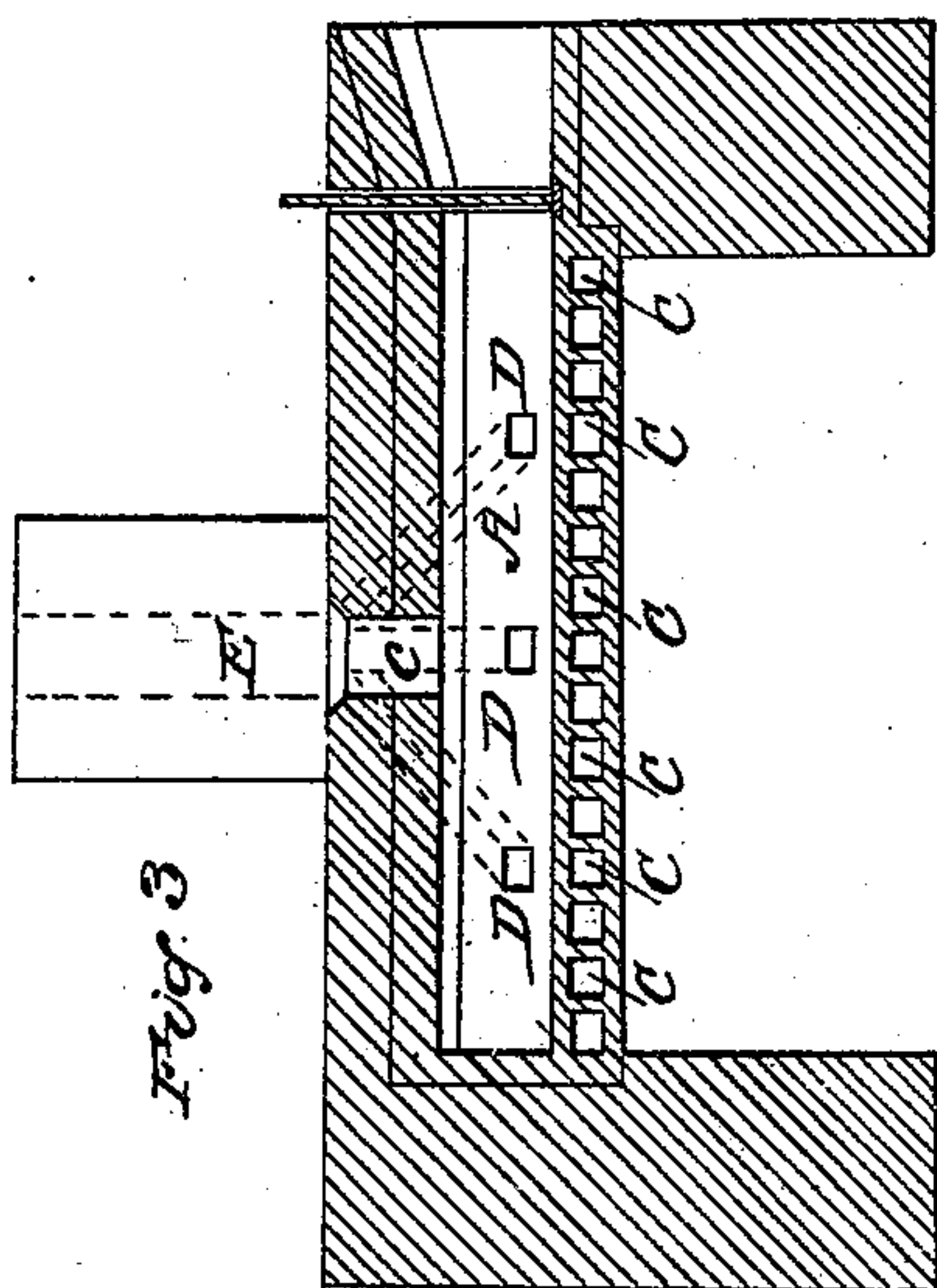


Fig. 3

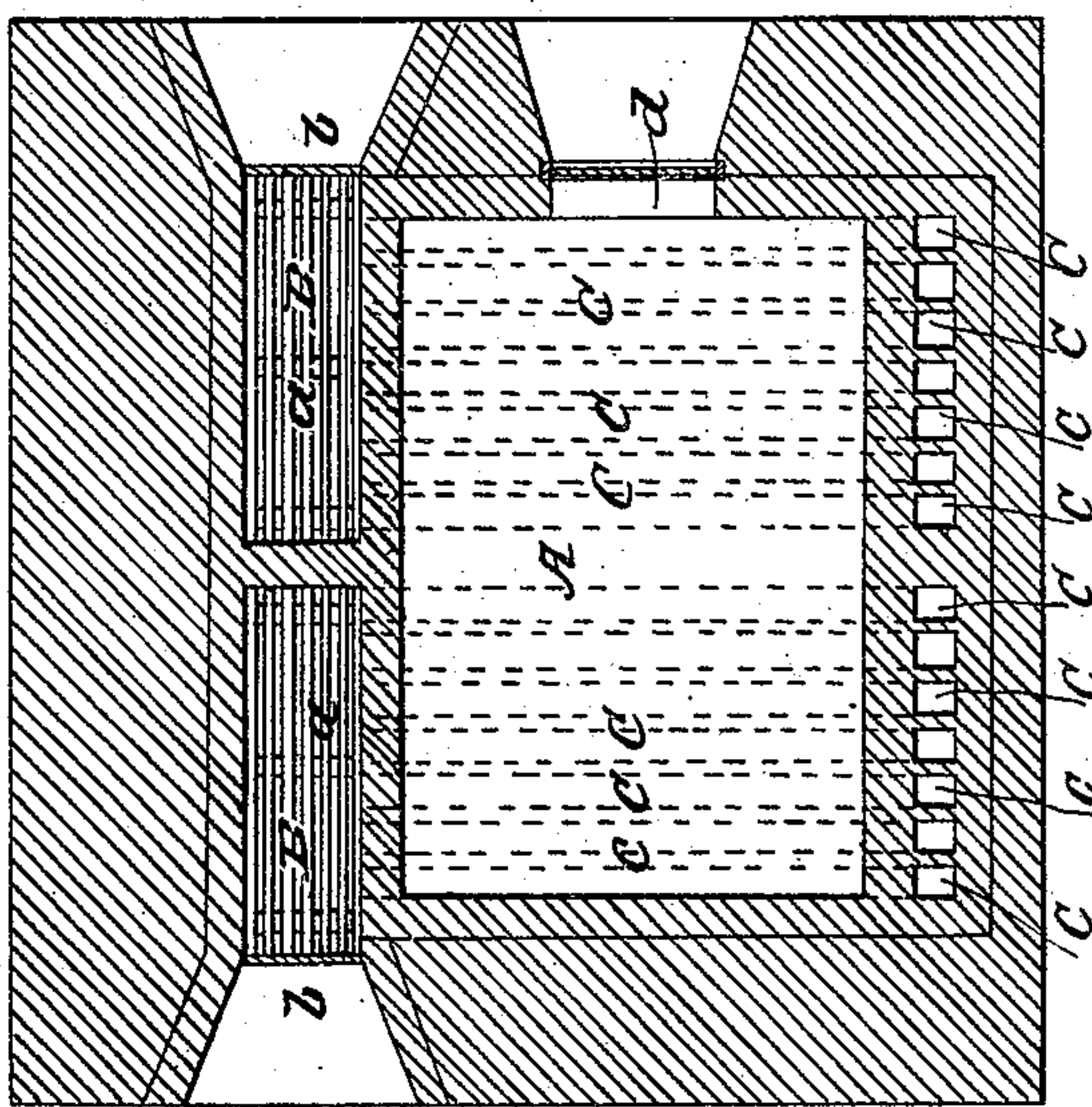


Fig. 4

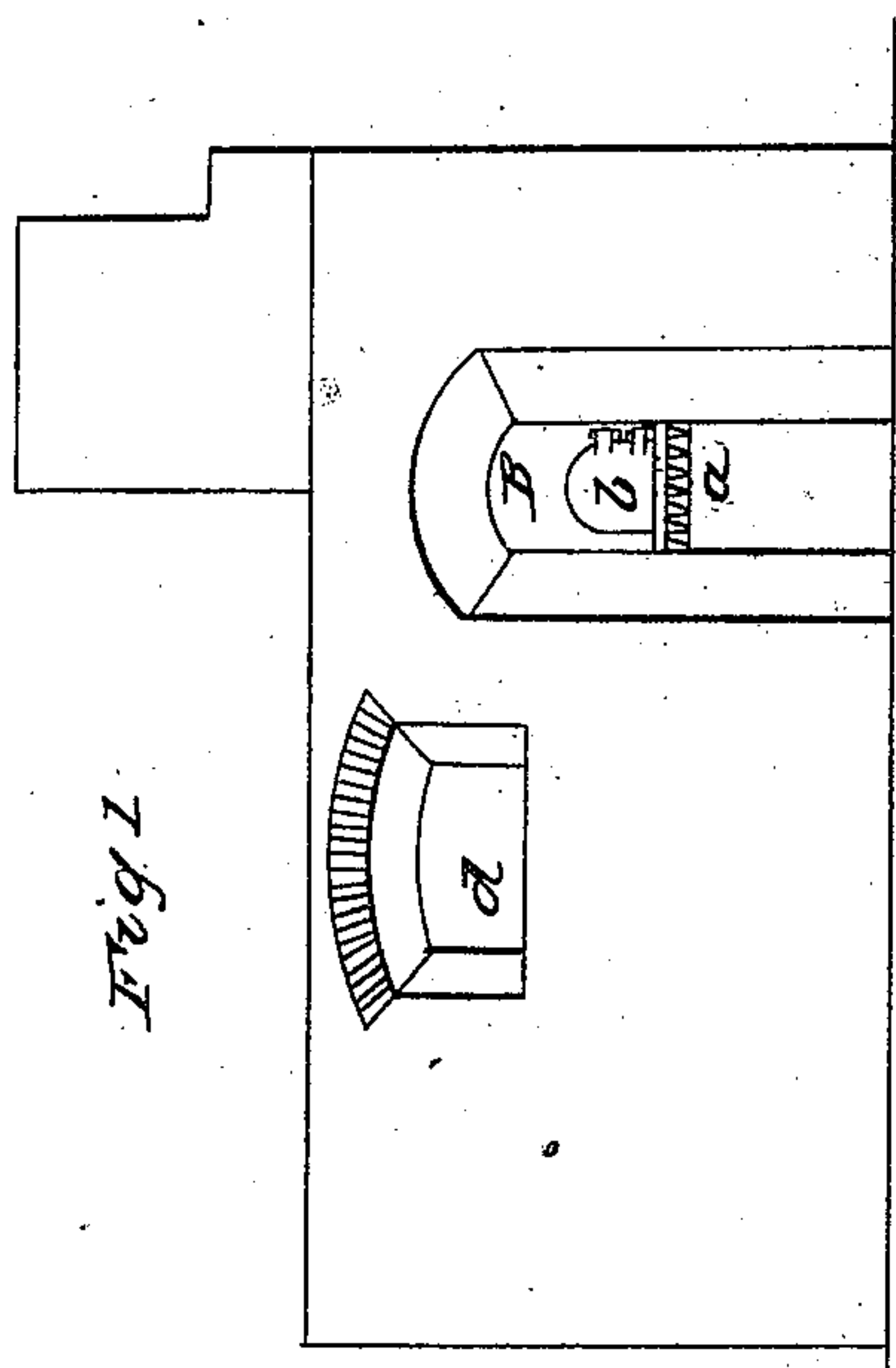


Fig. 1

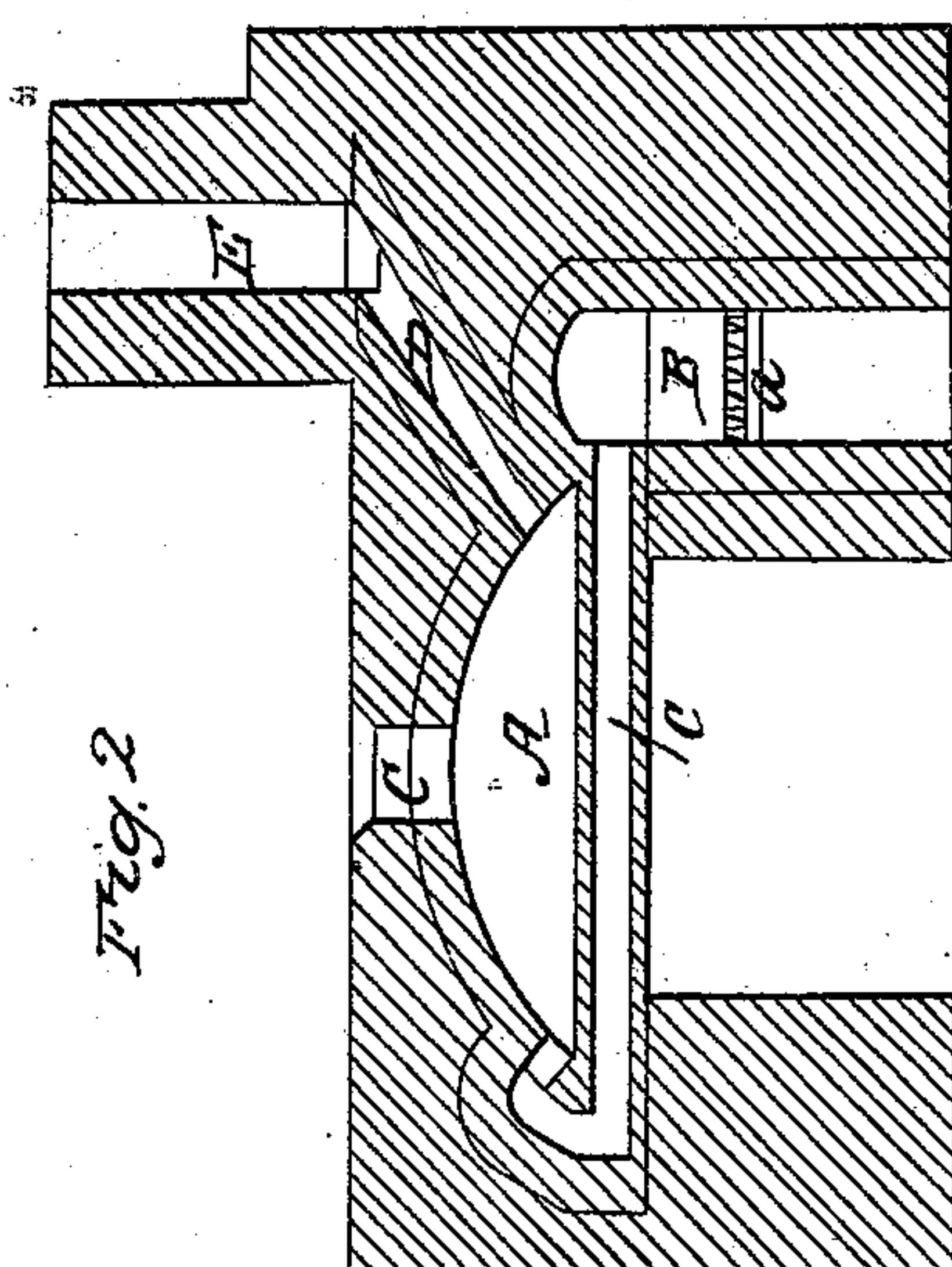


Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS AUGUSTE BOISSON, OF LYONS, FRANCE.

OVEN FOR BAKING FIRE-BRICKS.

Specification of Letters Patent No. 31,150, dated January 22, 1861.

To all whom it may concern:

Be it known that I, LOUIS AUGUSTE BOISSON, of Lyons, in the Empire of France, have invented a new and useful Improvement in Ovens for Baking Fire-Bricks and other Articles of Fire-Clay; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of the oven. Figs. 2 and 3 are vertical sections of the same, at right angles to each other. Fig. 4 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a novel arrangement of a furnace or furnaces, heating flues, and escape flues, in combination with a chamber of arched form, whereby I effect a great saving of time and fuel in the baking process, and, by a quick baking at a regular, but not too intense heat, am enabled to make fire-bricks, or other articles, of better than usual quality.

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

A is the arched chamber of the oven, built of masonry, upon a suitable foundation, and lined with fire-brick. The arch of this chamber is of such radius that it meets the flat bottom thereof, making the chamber of a width much greater than its height.

B, B are two furnaces arranged end to end at one side of the chamber A, with their grates *a, a*, some distance below the bottom of the chamber, one of said furnaces having its door *b*, at one end, and the other having its door *b*, at the opposite end of the oven.

C, C are heating flues, running horizontally from the furnaces B, B, under and very near the bottom of and transversely to the chamber A, and rising on the opposite side of the said chamber to that on which the furnaces are situated, to enter the said chamber above its bottom, as shown in Fig.

2. Of these flues there should be as many as the length of the chamber A, admits of, due regard being had to the strength of the bottom of the said chamber.

D, D are escape flues, leaving the chamber A, on the side next the furnaces, and communicating with a common chimney E.

c is an opening in the top of the chamber A, for the insertion of the bricks or articles to be baked, and *d*, is an opening at one end of the said chamber for the withdrawal of the bricks or other articles after they have been baked. The opening *c*, should be fitted with a cover, and *d*, with a sliding door.

The operation of the oven is as follows:—

Fire having been started in the furnaces B, B, the bricks or other articles to be baked are introduced through the opening *c*, and the said opening, as well as the opening *d*, is closed up. The heated gaseous products of the combustion in the furnace pass through the heating flues C, C, and through the chamber A, and escape flues D, D, to the chimney, and so not only heat the bricks or articles to be baked by direct contact with them, but impart such an intense heat to the bottom of the chamber as to make the said bottom constitute a most effective radiating surface, to which the arched roof acts as a reflector or reverberator, thereby economizing fuel, and enabling the bricks to be baked in a very short time.

The interposition of the heating flues C, C, between the furnaces and the chamber A, prevents sudden changes being produced in the temperature of the chamber A, by sudden drafts of cold air entering the fire, and by heating the bottom of the furnace renders the temperature of the said chamber less liable to be affected by changes in the condition of the fire, and so causes the baking to be continued at a very regular temperature, which is very essential to the production of good bricks.

The two separate furnaces are not absolutely an essential feature of my invention, but are used for the sake of convenience as a single furnace running the whole length of the oven would be difficult to manage.

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

The arrangement of the furnace or furnaces B, B, heating flues C, C, and escape
5 flues D, D, with respect to each other and the arched chamber A, whereby the heat is first conducted beneath the hearth of the

oven, and thence through the oven; all substantially as herein described.

LOUIS AUGUSTE BOISSON.

Witnesses:

LOUIS WM. VIOLLIER,
GEORGE S. BERNARD.