

No. 855,384.

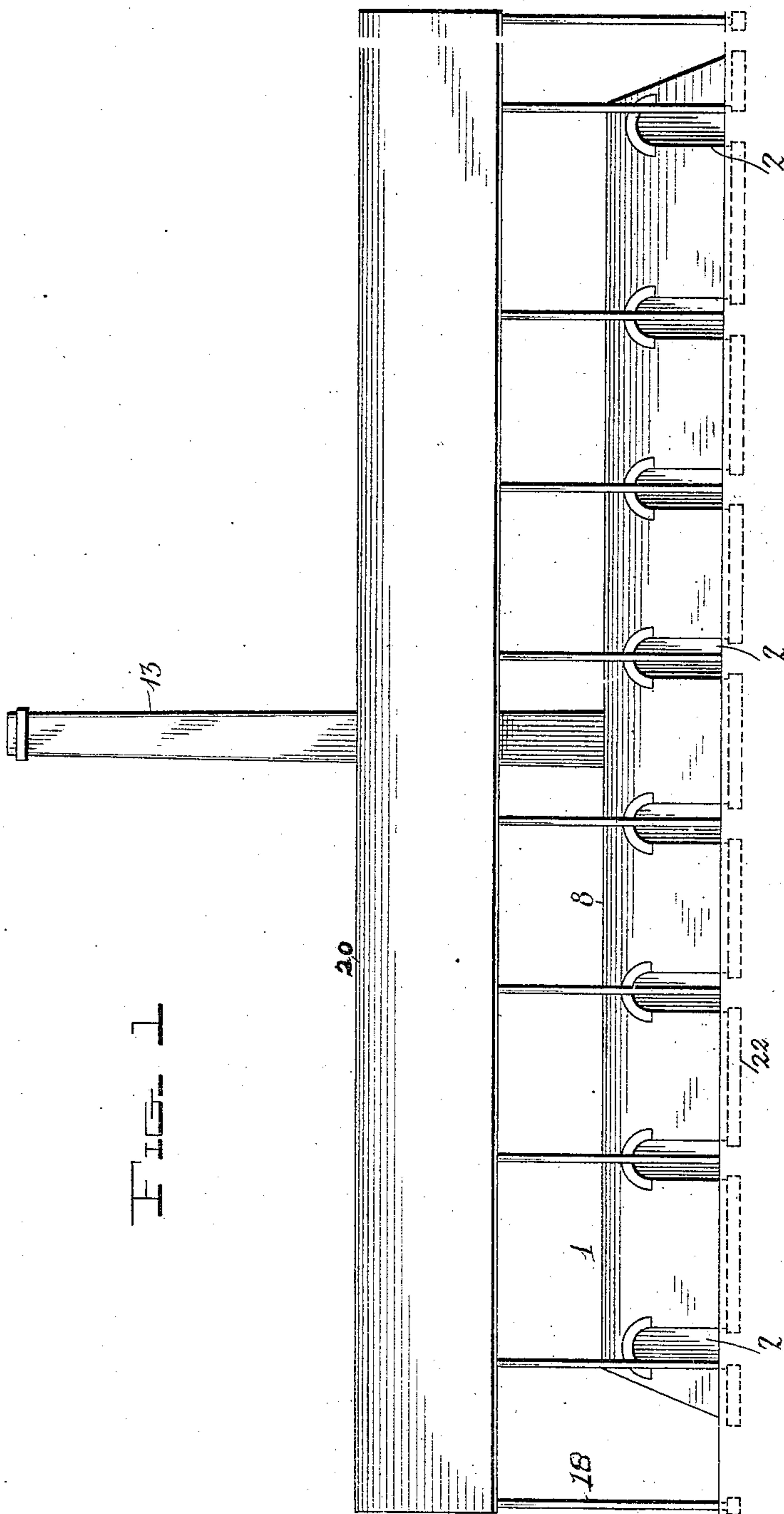
PATENTED MAY 28, 1907.

B. F. CANAVERA.

BRICK KILN.

APPLICATION FILED FEB. 4, 1907.

6 SHEETS—SHEET 1.



Witnesses
C. L. Johnson
C. H. Griesbauer.

Inventor
Baptiste Fedele Canavera
by *A. B. Wilson & Co.*
Attorneys

No. 855,384.

PATENTED MAY 28, 1907.

B. F. CANAVERA.

BRICK KILN.

APPLICATION FILED FEB. 4, 1907.

5 SHEETS—SHEET 2.

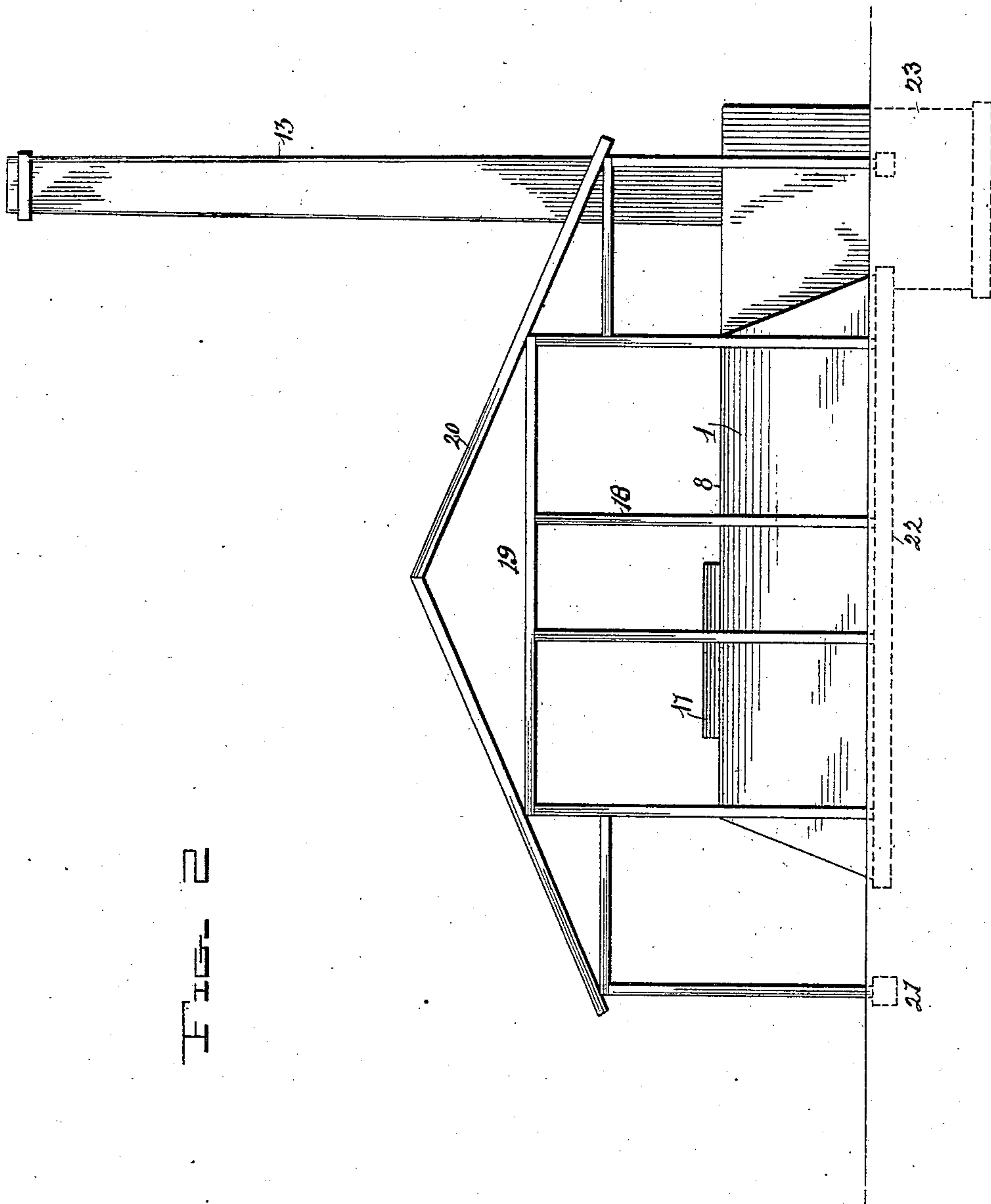


Fig. 2

Witnesses
D. J. G. G. G.
C. H. Griesbauer.

Inventor
Baptiste Fedele Canavera
by *A. B. Wilson & Co.*
Attorneys.

No. 855,384.

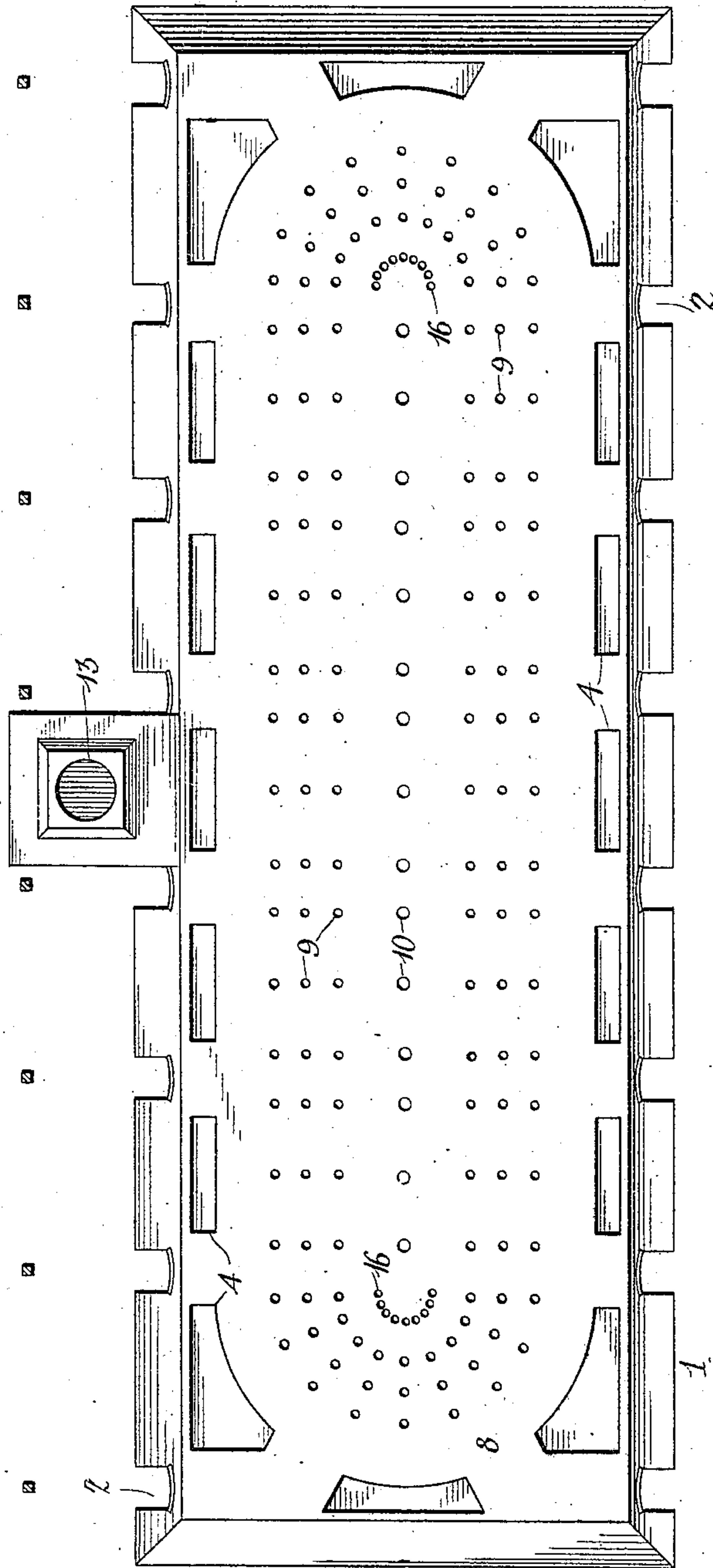
PATENTED MAY 28, 1907.

B. F. CANAVERA.
BRICK KILN.

APPLICATION FILED FEB. 4, 1907.

5 SHEETS—SHEET 3.

FIG. 3



Witnesses
A. B. Wilson
C. H. Gieshauer

Inventor
Baptiste Fedele Canavera
by *A. B. Wilson & Co*
Attorneys

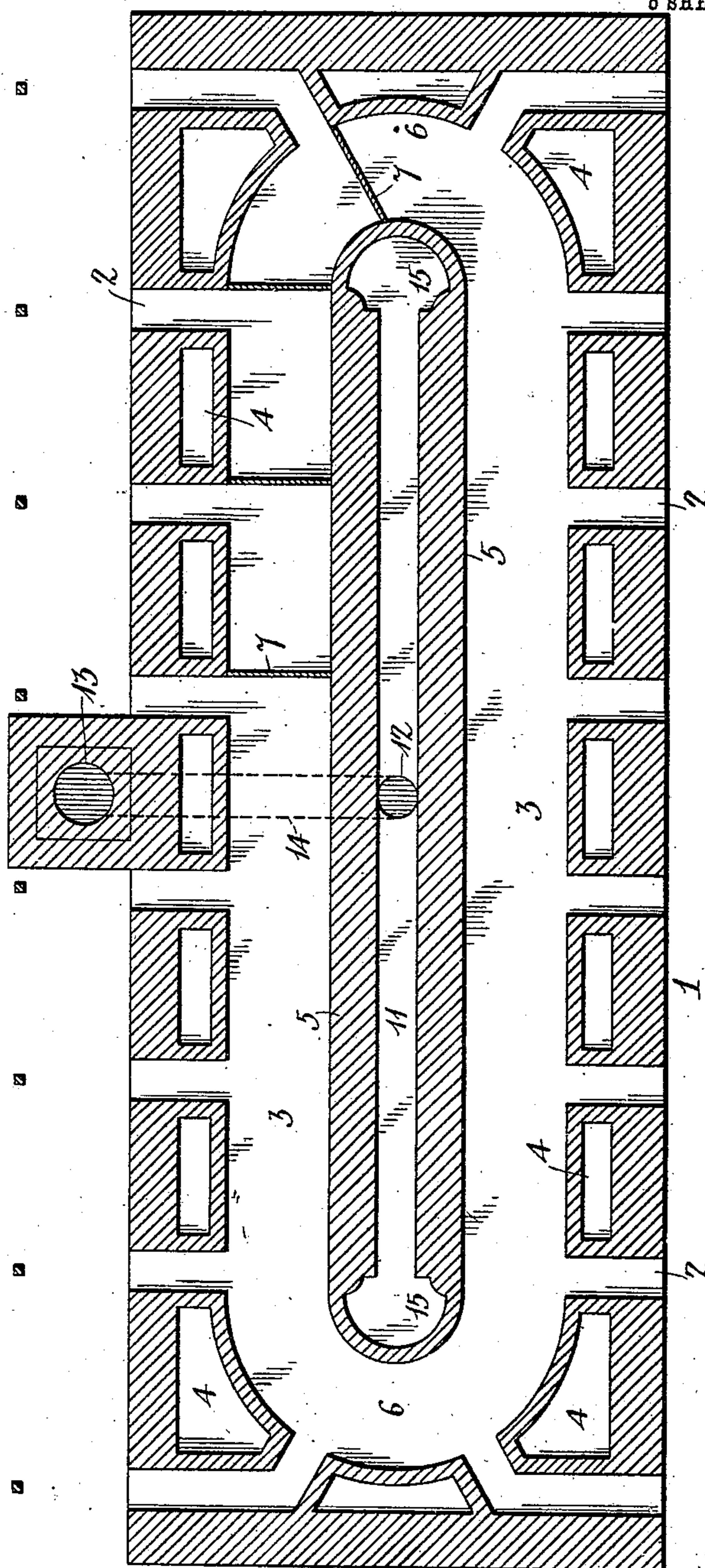
No. 855,384.

PATENTED MAY 28, 1907.

B. F. CANAVERA.
BRICK KILN.

APPLICATION FILED FEB. 4, 1907.

5 SHEETS—SHEET 4.



Witnesses
J. J. Johnson
C. F. Griesbauer.

Inventor
Baptiste Fedele Canavera
by *A. B. Wilson & Co*
Attorneys

No. 855,384.

PATENTED MAY 28, 1907.

B. F. CANAVERA.

BRICK KILN.

APPLICATION FILED FEB. 4, 1907.

5 SHEETS—SHEET 5.

Fig. 5

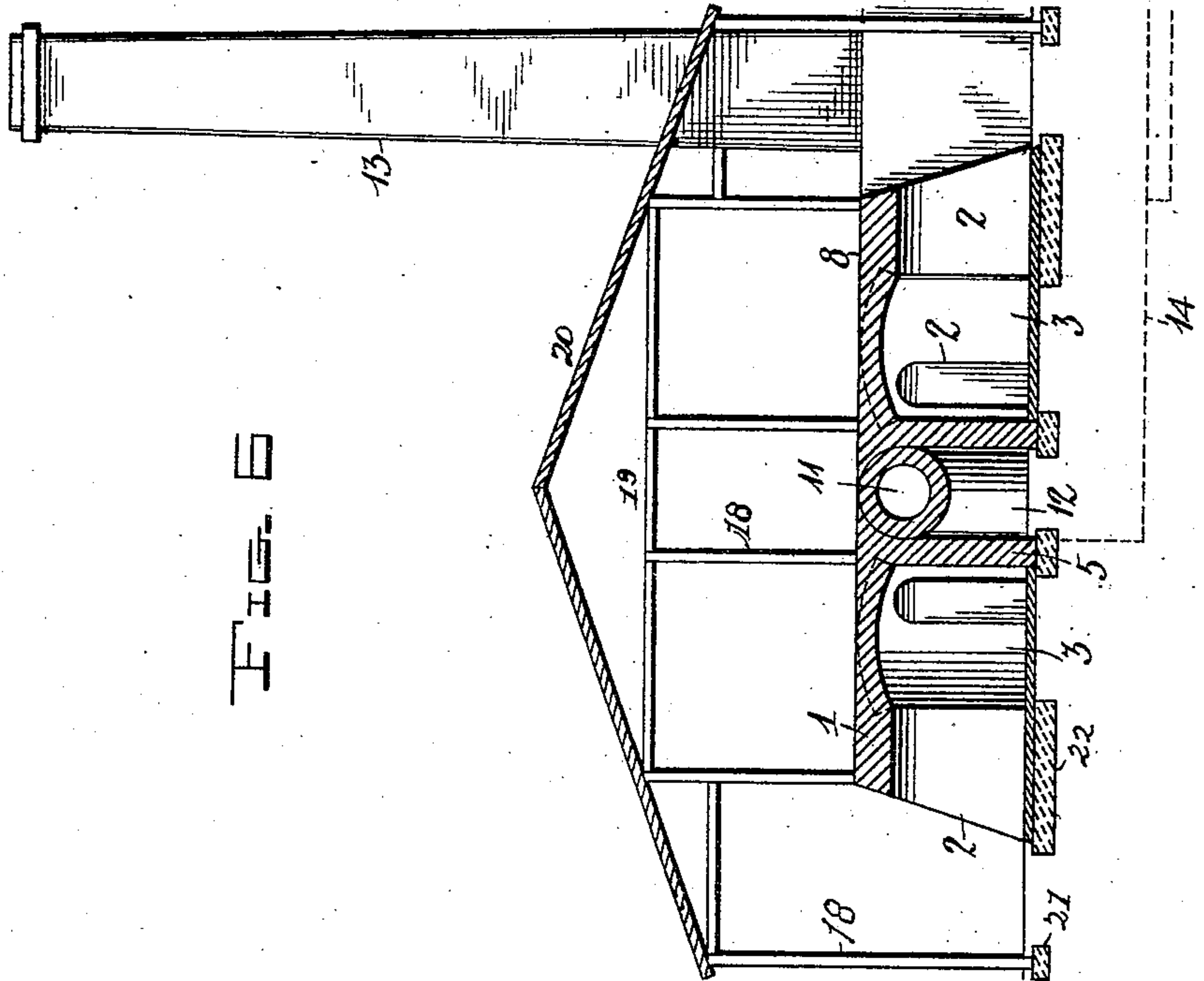
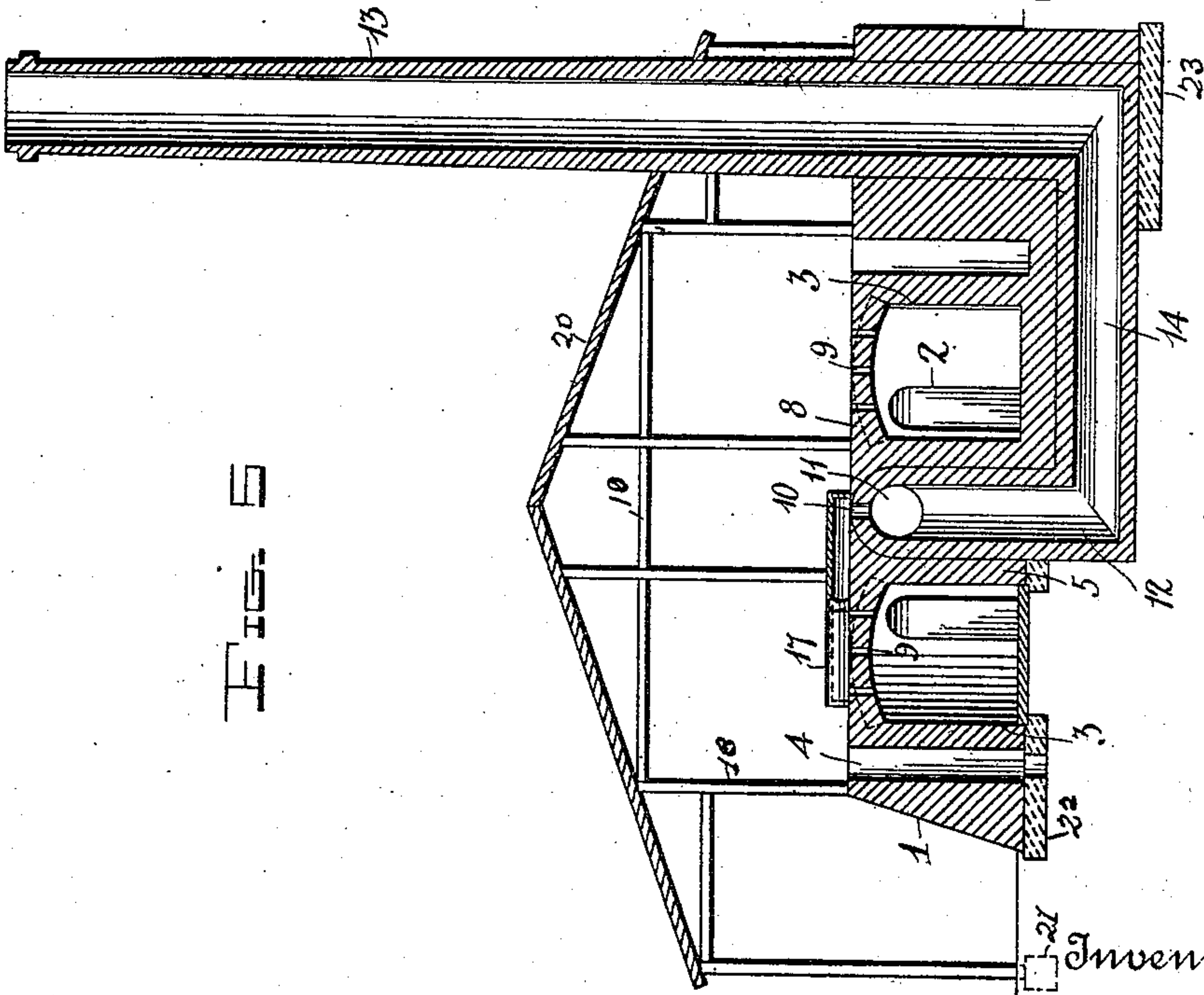


Fig. 6



Witnesses
C. L. Perkins
C. H. Grieshaber

Inventor
Baptiste Fedele Canavera
By *A. B. Wilson & Co*
Attorneys

UNITED STATES PATENT OFFICE.

BAPTISTE FEDELE CANAVERA, OF COULTERVILLE, ILLINOIS.

BRICK-KILN.

No. 855,384.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed February 4, 1907. Serial No. 355,770.

To all whom it may concern:

Be it known that I, BAPTISTE FEDELE CANAVERA, a citizen of the United States, residing at Coulterville, in the county of Randolph and State of Illinois, have invented certain new and useful Improvements in Brick-Kilns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to kilns, and more particularly to what are known as continuous kilns, for burning brick and similar articles; and it has for its object to construct such a kiln as will be convenient for operation, economical in fuel, and very rapid and efficient in its work.

Referring to the accompanying drawings, which illustrate the invention,—Figure 1 is a front elevation of a kiln embodying the invention; Fig. 2 is an end elevation of the same; Fig. 3 is a top plan view of the kiln proper, without the housing; Fig. 4 is a horizontal sectional view of the kiln near the top; Fig. 5 is a central, transverse, vertical sectional view; Fig. 6 is a similar view taken through the openings in the side walls of the kiln.

Referring more particularly to the drawings, 1 indicates the body of the kiln, which may be of any height, size and dimension, but is preferably made rectangular or oblong in outline and flat on top. The outer wall of the kiln is provided with openings 2 which lead into a space 3, and is preferably made hollow, as shown at 4, which hollow spaces are preferably filled with a suitable non-conductor of heat, as sand.

An inner wall 5 is arranged centrally of the kiln which forms the space 3 into two parallel spaces jointed at their ends, preferably by semi-circular portions 6. These spaces are formed into chambers by means of transverse walls 7, preferably in the form of removable shutters which may be placed in position as needed, thereby virtually creating a plurality or series of independent kilns in one structure. Each chamber is provided with one of the openings 2, through which it may be filled and emptied, a space being left in the interior for the fire when the chamber is filled.

The top 8 of the kiln is formed continuous and provided with openings 9 and 10, the openings 9 being arranged in the portion of

the top over the space 3, which is preferably in the form of an arch, and the openings 10 being arranged longitudinally along the center of the kiln and communicating with a chamber or passage 11. The passage 11 communicates at the middle with a down-take or passage 12 which communicates with the chimney 13 by a flue 14.

Where the ends of the space 3 are curved, as in the present instance, the ends of the chamber 11 are preferably enlarged, as shown at 15, and a circular series of openings 16 are arranged to communicate therewith, and the perforations 9 that communicate with the end spaces 6 are arranged radially relatively to the curved series of openings 16. The openings 9 are preferably arranged in three rows of three openings in a row, each row being in alinement with one of the openings in the chamber 11 or the enlargement 15 at its ends.

A movable flue 17 is preferably formed from channel iron or an inverted trough-like piece of metal with its ends closed, and of a sufficient distance to extend over one of the rows of openings 9 in each chamber, and one of the openings in the chamber 11. By enlarging the ends of the chamber 11 and arranging the openings 16 in the form of a semi-circle the flues 17 are interchangeable, that is, each flue can be placed over any of the rows of openings without the possibility of a misfit, or of requiring a different form of flue, as for instance, one with a hood or enlargement upon one end, as would be necessary if the end kilns all communicated with a single large opening at each end of the central chamber.

In using a kiln as above described, a chamber is formed within the space 3 by forming partitions therein as by building a temporary wall, but preferably by means of a peculiar shutter which forms no part of the present invention, and therefore is not shown. The chamber is then filled through its opening 2, space being left in the interior for the fire. The openings 2 are then wholly or partially closed in the usual manner, and the openings in the top of the kiln are also closed, except all or a portion of the openings communicating with this particular chamber. One of the removable flues is then placed over each set of openings in the top of the filled chamber to connect them with the openings in the central chamber, and thereby establish communication between said chamber and the

chimney. The fire is then lighted and the article in the chamber is burned in the usual manner. After any one of the chambers has been thus formed and put into operation, another chamber can be formed by building another partition across the space, and it can be filled through its opening, and communication established between it and the chimney by means of an additional removable conduit on top, the openings in the top of the new chamber having been opened before the fire was lighted. Additional chambers can be successively formed and put into operation in the same manner until the entire space around the central wall can be filled and each of them burning its contents as thoroughly and successfully as though it were constructed by itself, independently of all of the other chambers. By the time that the entire space has been thus filled, the burning of the first kiln will have been completed, and the material removed by the time the last one has been filled, and in this manner the burned kilns or chambers may be emptied and refilled and the operation thus rendered continuous. When used in this manner it is evident that the heat from a burning kiln will assist in drying out and preparing the articles in the adjacent kiln while said adjacent kiln is being filled ready for burning, thereby utilizing heat from the burning kiln that would be otherwise wasted if each kiln were formed separate.

If desired a suitable housing may be formed in the usual manner, comprising posts 18, cross pieces 19, and a roof 20, which extends entirely over the kiln, and also to a suitable distance upon each side and the ends to afford protection for the outer walls of the kiln and the entrances to the chambers. Part of the posts or uprights rest directly on the top of the kiln outside of the sand space, and the outer ones rest upon suitable foundations 21, preferably formed from concrete. The walls and chimney of the kiln are also preferably supported upon similar foundations 22, and 23 respectively and the interior of the wall 5 is preferably hollow, and filled with sand or

other suitable material similar to the outer wall.

Such changes in the form and construction of the kiln as will come within the scope of the appended claims may be made without departing from the spirit of the invention.

Having described my invention, I claim:—

1. In a continuous kiln, walls arranged to form a continuous elongated space, the end portions being substantially semi-circular, the outer wall being provided with openings leading into said space, and the inner wall provided with a chamber in communication with the chimney of the kiln and having its ends enlarged, means for dividing said space into individual compartments, and means for establishing communication between said compartments and said chamber in the middle wall, the end compartments communicating with the enlarged portions of said chamber.

2. In a continuous kiln, walls arranged to form a continuous elongated space, the ends of which are semi-circular, means for dividing said space into individual compartments, the outer wall of the kiln being provided with openings, one for each compartment, and the central wall being provided with a chamber communicating with the chimney of the kiln and having its ends enlarged and semi-circular, the top of the kiln being provided with rows of perforations for each compartment and the chamber and its enlargements in the central wall being provided with openings, one for each of said rows of openings in the compartments, a removable flue on the top of the kiln for establishing communication between each of said rows of openings in the compartments and the corresponding opening in the chamber in the middle wall.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BAPTISTE FEDELE CANAVERA.

Witnesses:

PETER ZERBARINI,
JAMES LOMBARDO.