

No. 670,275.

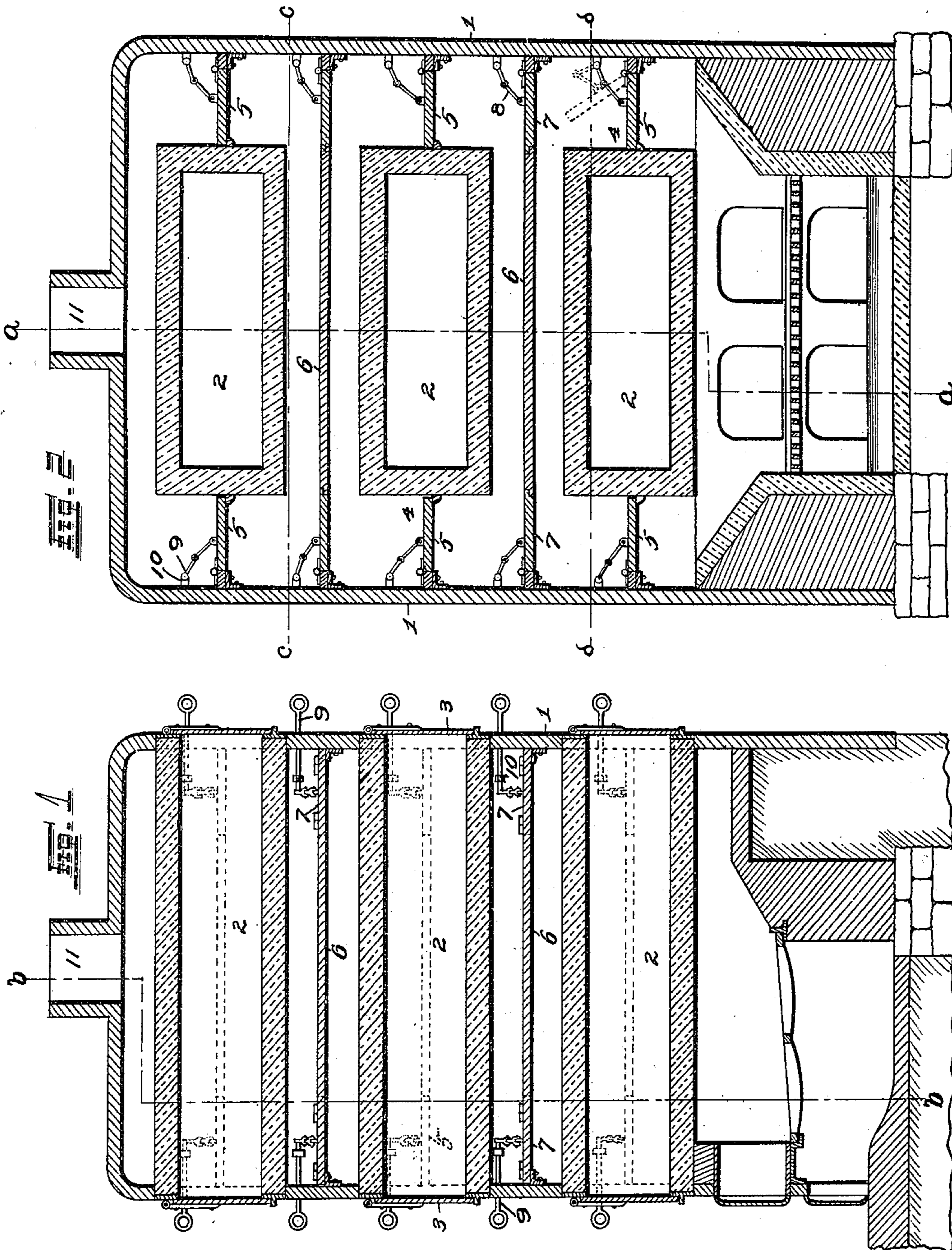
Patented Mar. 19, 1901.

W. FROHNE.  
BAKING OVEN.

(Application filed Mar. 26, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

Alfred O. Eichler  
J. H. Rippey

Inventor.

William Frohne  
By Sigmond Langan Atty.

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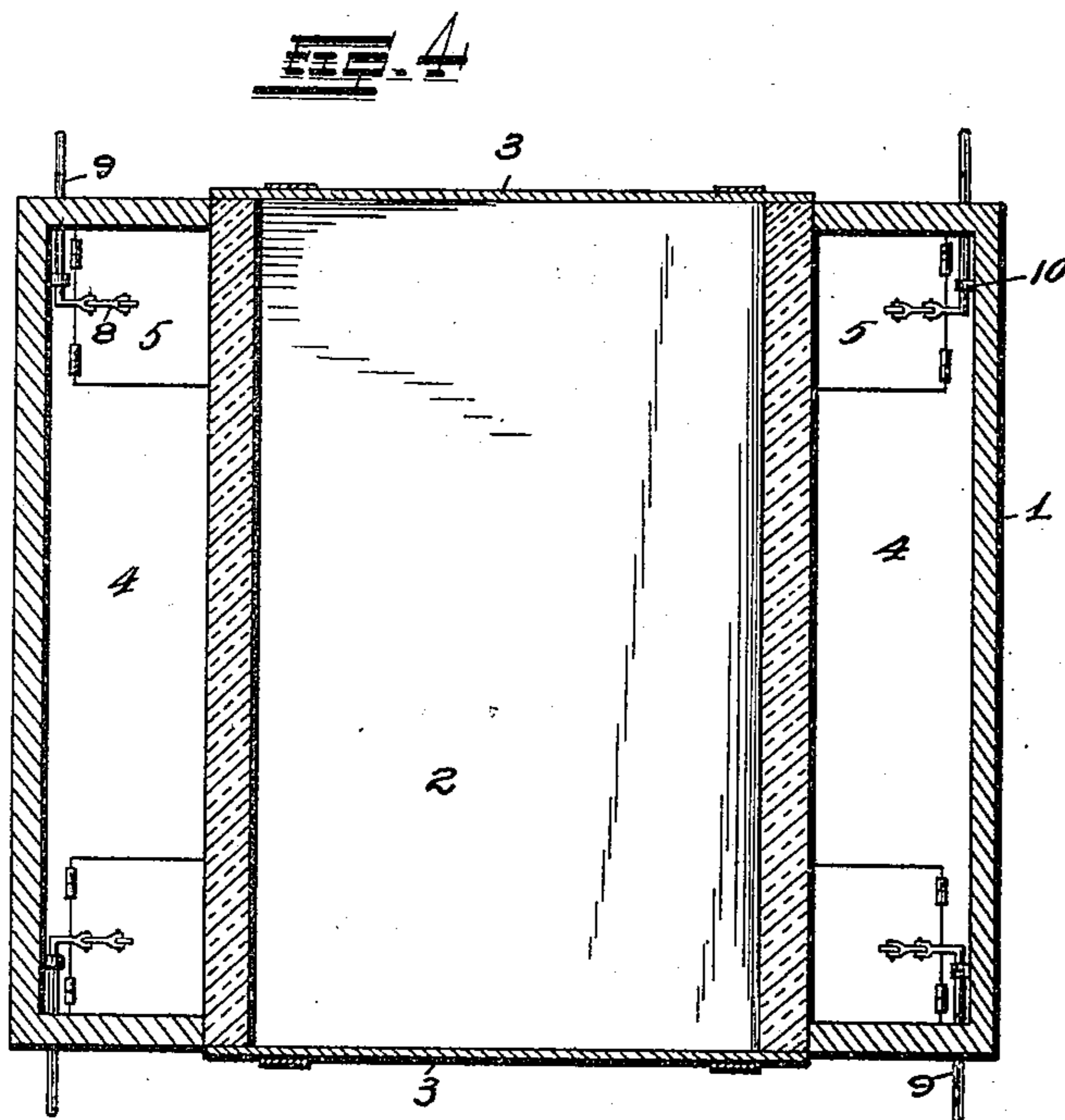
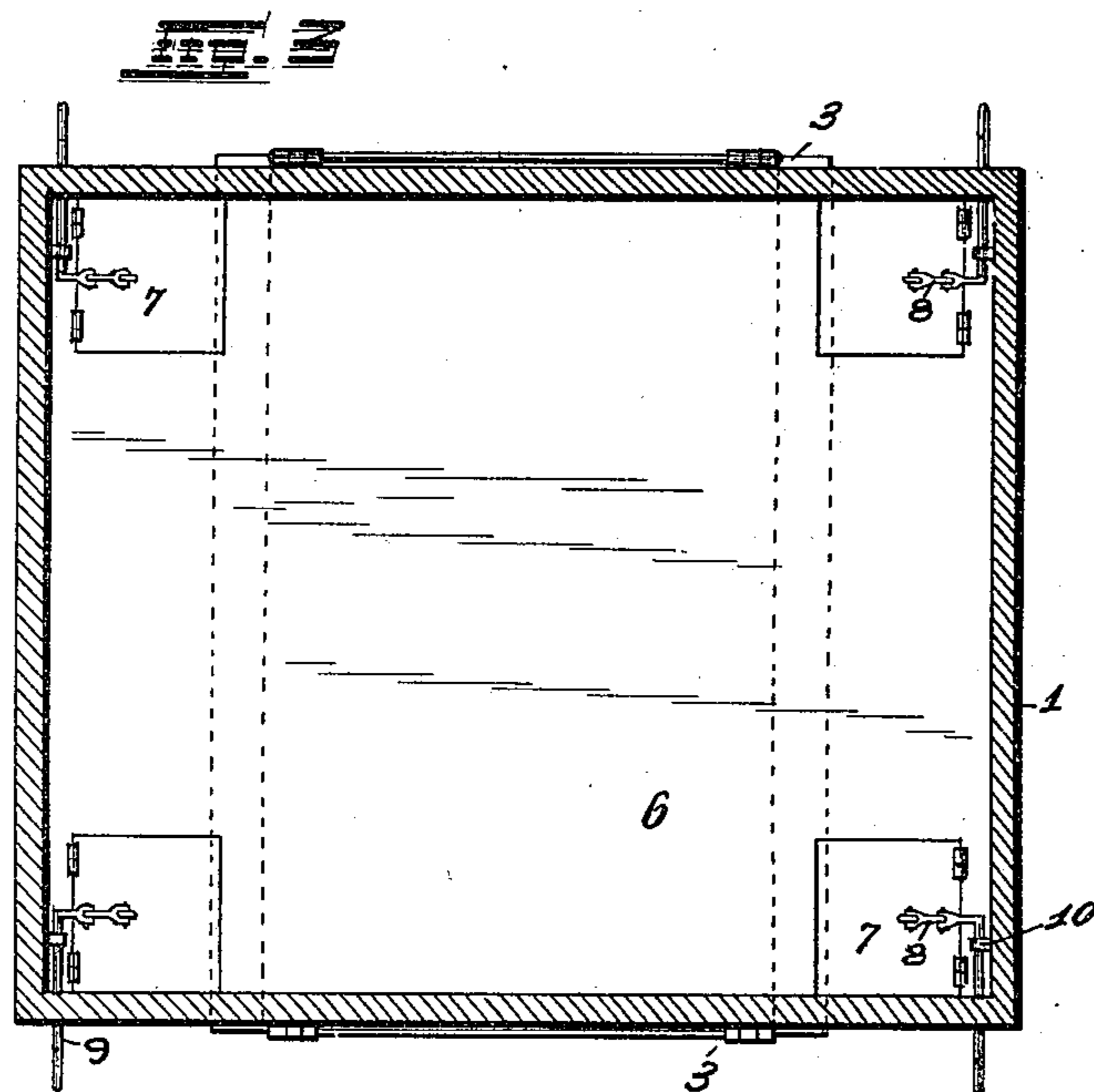
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Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM FROHNE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO  
A. H. LAGER, OF SAME PLACE.

## BAKING-OVEN.

SPECIFICATION forming part of Letters Patent No. 670,275, dated March 19, 1901.

Application filed March 26, 1900. Serial No. 10,236. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM FROHNE, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Baking-Ovens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to ovens; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a vertical sectional view taken approximately on the line *a a* of Fig. 2. Fig. 2 is a sectional view taken on the line *b b* of Fig. 1. Fig. 3 is a cross-sectional view taken approximately on the line *c c* of Fig. 2. Fig. 4 is a detail sectional view taken on the line *d d* of Fig. 2.

In the construction of this invention I provide outer walls 1 of any preferred construction and of a height sufficient to receive the desired number of ovens 2, constructed, preferably, of yellow clay and which are supported by the front and rear outer walls and are provided at each end with a door 3 for the purpose of giving access to any point in the interior of the ovens. Between the sides of the ovens and the outer walls are side plates 4 and at each end of each of the said side plates is pivoted a door or damper 5, which may be adjusted to cause the heat ascending from below to pass upwardly at either corner of the oven, and after passing up at one corner of one oven the heat may be deflected and made to pass at the opposite corner of the next higher oven.

Between each pair of ovens 2 is a horizontal division-wall 6, and at each corner of the said division-walls is pivoted a damper 7 in all respects similar to the dampers 5. To each of the dampers 5 and 7 is pivotally secured a rod 8, the same projecting upwardly and being connected at their upper ends to an operating-lever 9. The levers 9 are supported by suitable lugs 10 and project outwardly through the outer walls and afford a very convenient means for regulating the passage of the heat exteriorly of the outer walls. At the top of the oven is a suitable outlet 11, through which the heat may be allowed to pass after having passed around all the ovens. The entire device is adapted to be placed over a furnace, as shown in Figs. 1 and 2, the

outer walls 1 inclosing the walls of the furnace and the lower one of the ovens 2 being immediately above the furnace.

The utility of an oven constructed in accordance with the above principles is readily apparent. The heat after passing upwardly at one side or at one corner of the lower oven may easily be deflected and made to pass up at the diagonally opposite corner or at the opposite side of the next upper oven, and after passing upwardly above the second oven it can be guided across the upper side of the same and against the lower side of the third, above which the same operation can be performed until the heat and products of combustion pass out at the outlet 11 in the top of the oven. However, if it is only desired to use the upper oven or a number of the upper ones the heat and products of combustion can be allowed to pass straight up one side of the ovens not in use to the lower side of the oven which it is desired to use. There the heat can be deflected across the lower side of the oven in use, and after passing above it can be also drawn across its upper surface, by which means the oven will be subjected to an intense heat.

It is readily apparent that an oven constructed as above described will be of great utility in saving fuel and that the amount of heat necessary to accomplish the desired result will not be so great as in ovens in which the heat can only be drawn up on one side.

I claim—

A baker's oven comprising outer walls, a plurality of baking-compartments supported within said outer walls, partitions between said baking-compartments, side plates between the sides of the different compartments and the outer walls, the said partitions and plates being provided with aligned openings, near the outer walls, and dampers for controlling said openings, there being a furnace below the lowermost baking-compartment and an outlet for the products of combustion above the uppermost baking-compartment, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM FROHNE.

Witnesses:

ALFRED A. EICKS,  
JOHN D. RIPPEY.