

No. 723,233.

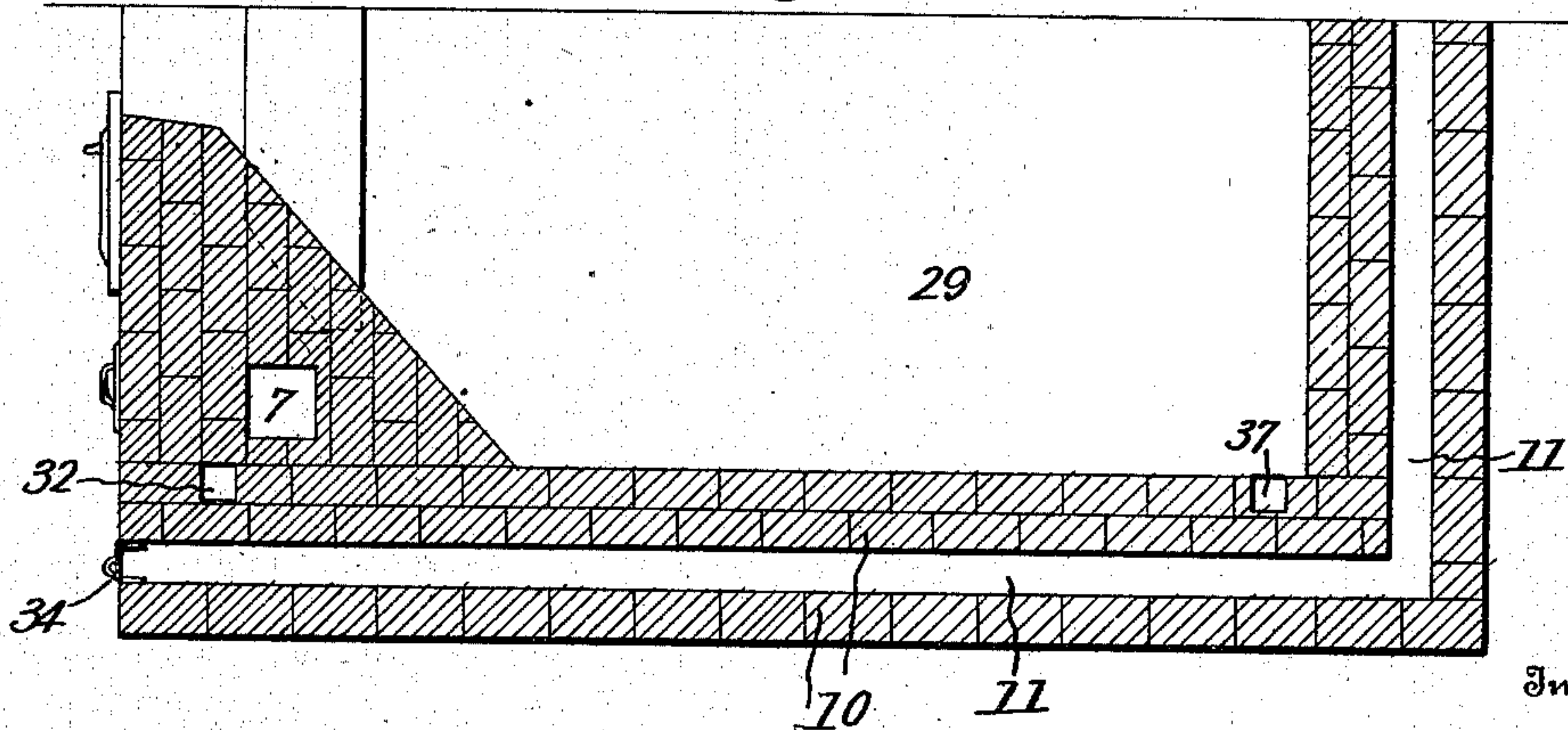
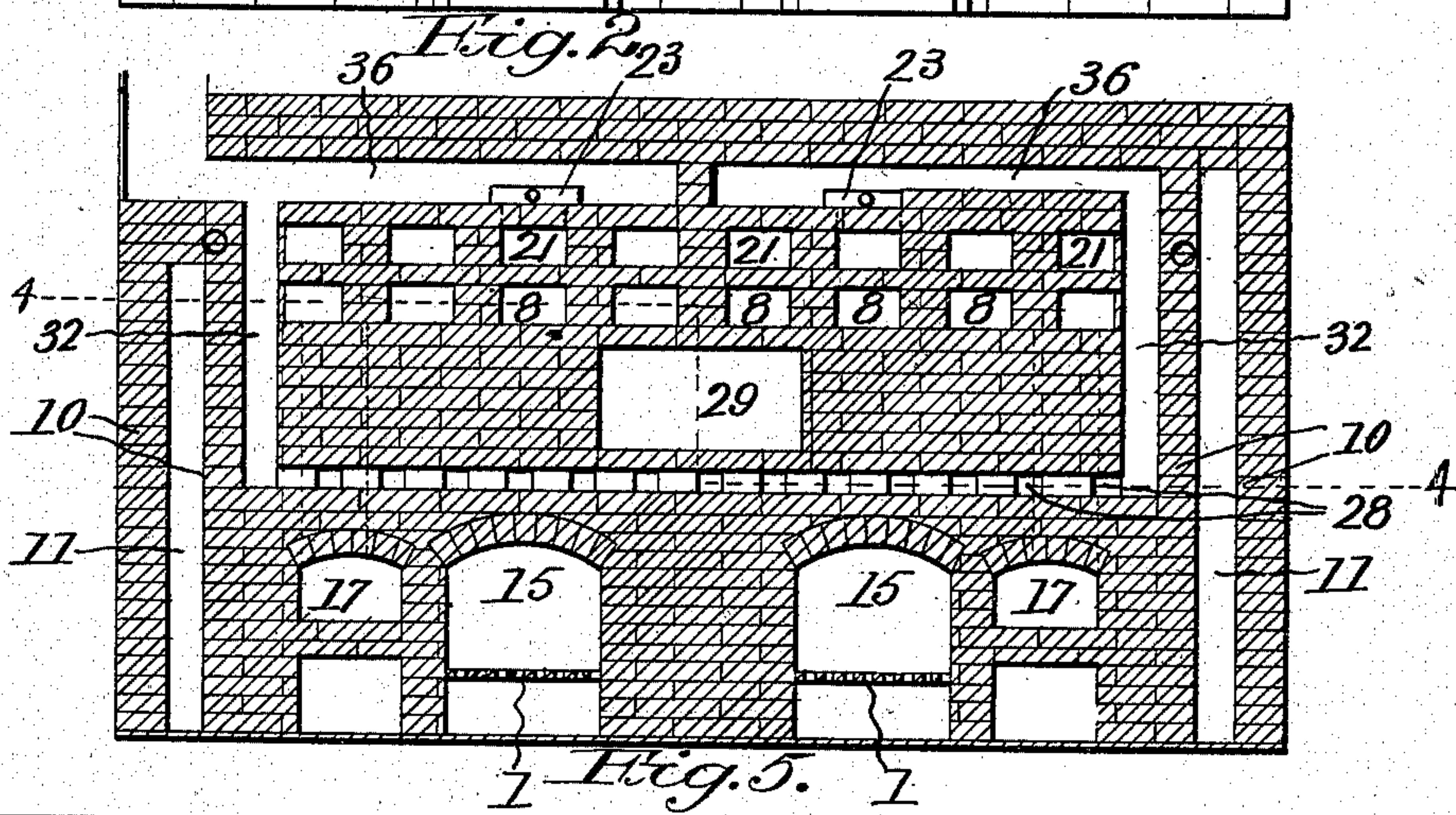
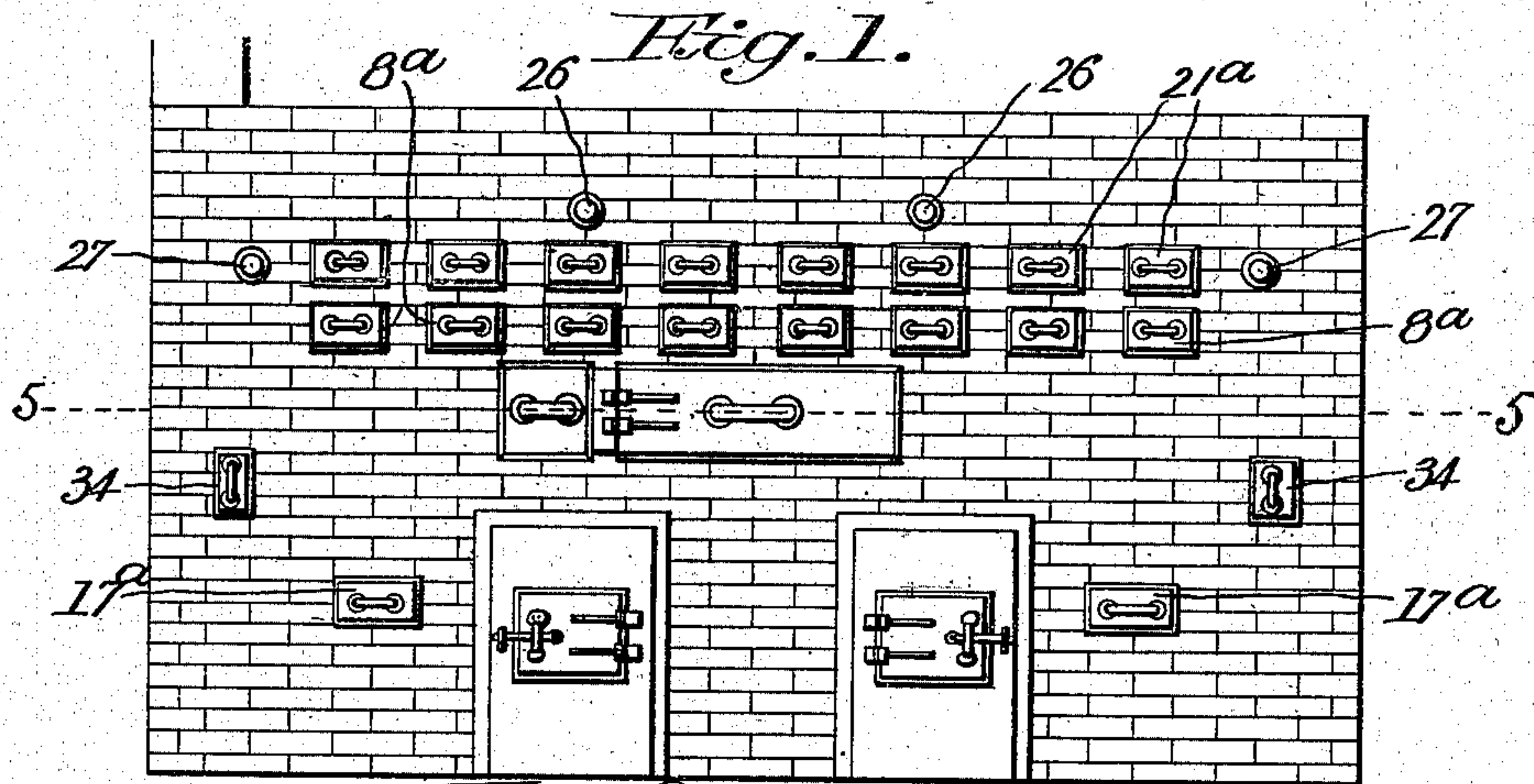
PATENTED MAR. 24, 1903.

C. BOSEMER.  
BAKER'S OVEN.

APPLICATION FILED AUG. 30, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

*E. H. Walker*  
*Geo. E. Tew*

By

*Chas. Bosemer*  
*Milo B. Stevens & Co.*  
Attorneys



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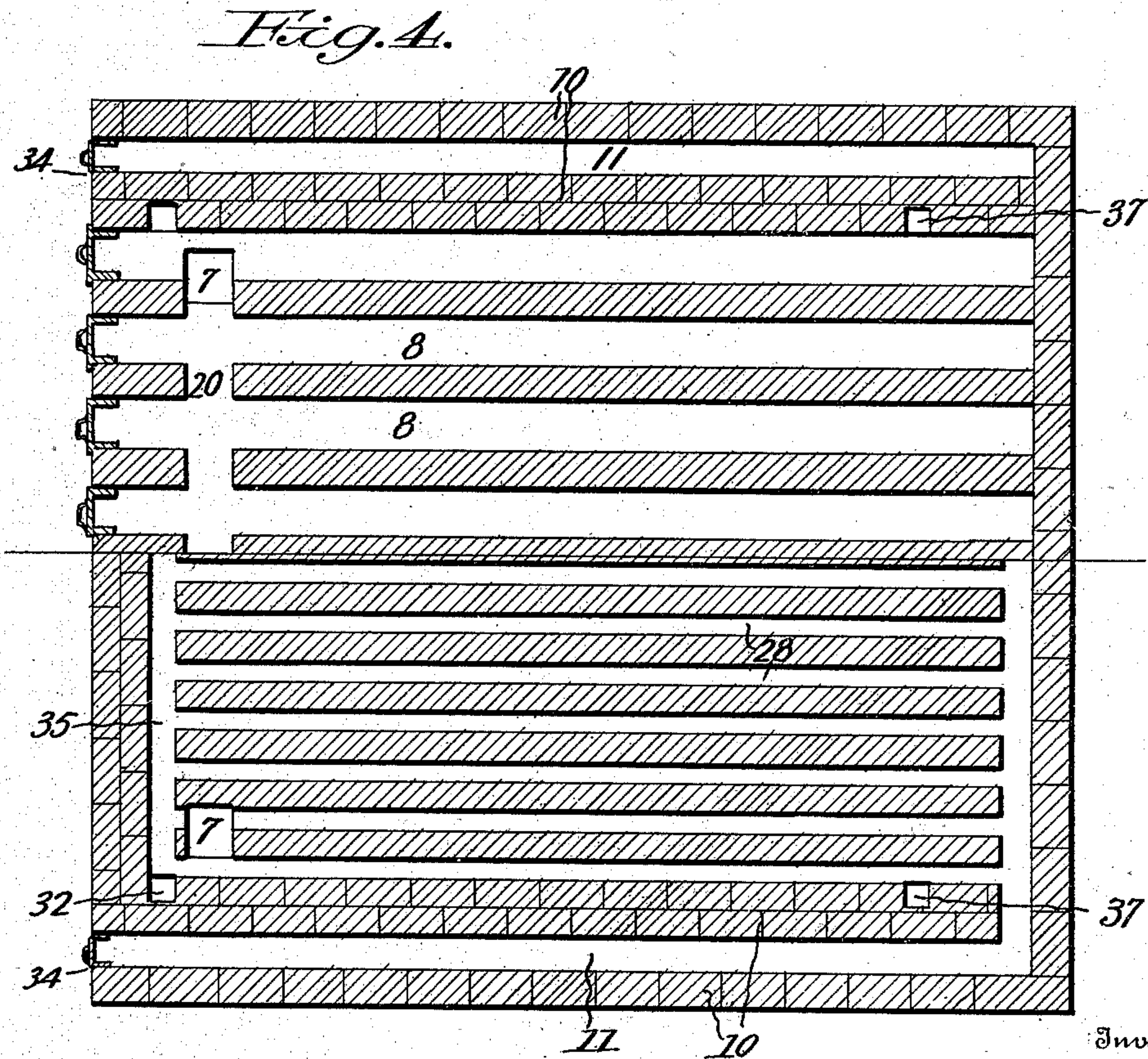
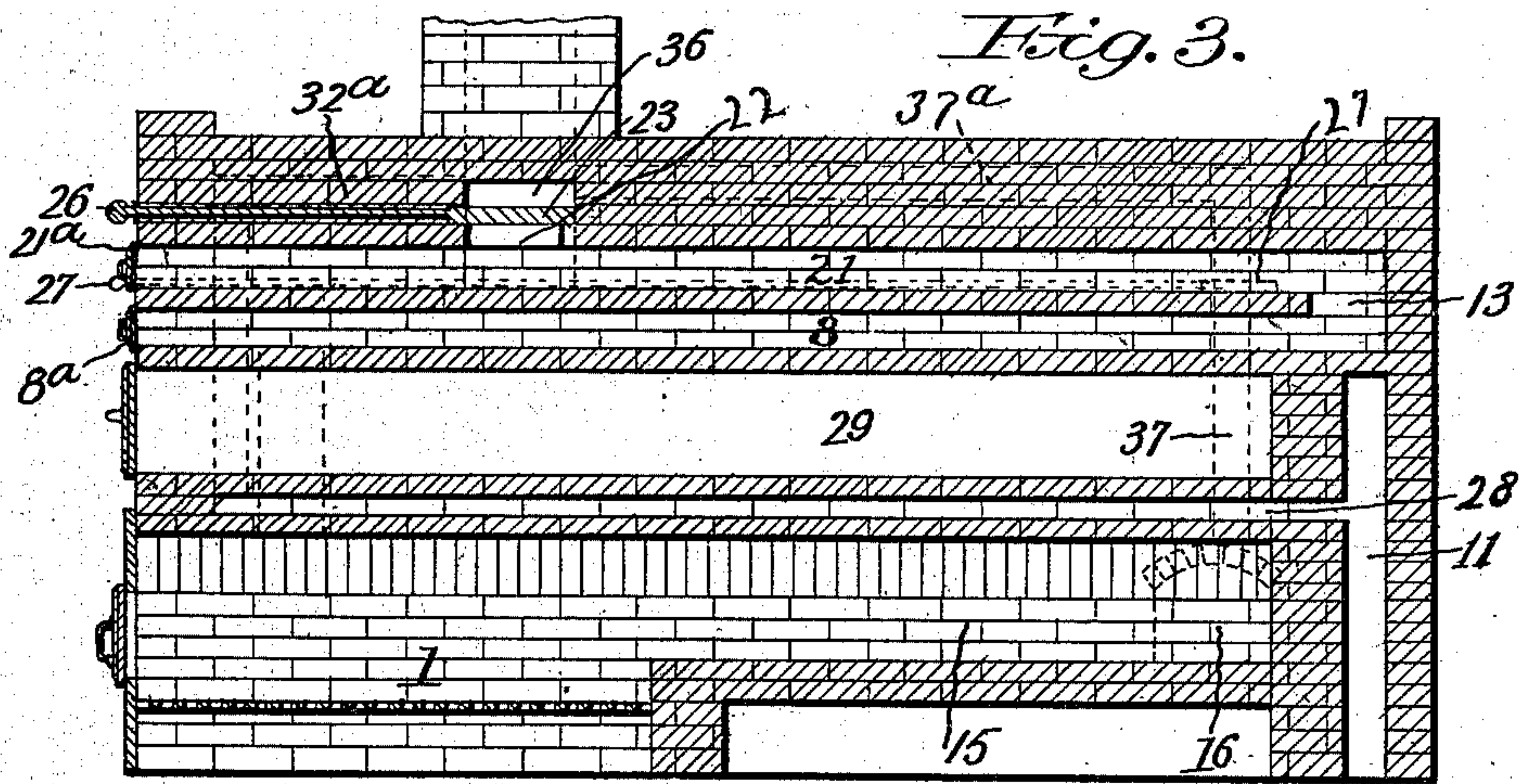
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Inventor

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# UNITED STATES PATENT OFFICE.

CHARLES BOSEMER, OF CHICAGO, ILLINOIS.

## BAKER'S OVEN.

SPECIFICATION forming part of Letters Patent No. 723,233, dated March 24, 1903.

Application filed August 30, 1902. Serial No. 121,587. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES BOSEMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bakers' Ovens; and I do hereby 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to bakers' ovens, and particularly to the means whereby the temperature of the oven is regulated. It embraces a novel and improved construction of hot-air flues and also a set of cold-air flues for cooling the baking-chamber when desired, the cold-air flues being separate and independent with respect to the hot-air flues.

Referring to the accompanying drawings, in which the invention is illustrated, Figure 1 is a front elevation of the oven. Fig. 2 is a vertical cross-section thereof. Fig. 3 is a vertical longitudinal section. Fig. 4 is a horizontal section on the line 4 4 of Fig. 2. Fig. 5 is a half-section on the line 5 5 of Fig. 1.

Referring specifically to the drawings, the oven is shown as built double, with two furnaces, (indicated at 1,) from each of which the products of combustion travel backwardly to the rear of the oven in an arched flue or combustion-chamber 15 and thence forwardly to the front of the oven in a flue 17, said flues being connected at the back by a cross-flue 16. From the front of the flues 17 the heat is carried by uptakes 7 above the oven-chamber, which is indicated at 29. The uptakes 7 join cross-flues 20, which deliver the heat into a series of longitudinal flues 8, which extend over the oven-chamber from the front to the back of the structure. From the flues 8 the heat is again returned forwardly through flues 21 above the flues 8, said flues being connected by upflues 13 at the back. The forward ends of the flues 21 join cross-flues 22, which open into the flues 36, connecting with the stack. A damper 23 is placed at each of said openings, operated by rod and handle 26, for the purpose of controlling the draft.

It will be seen that the heat passes back and forward under the baking-chamber and also back and forward over the baking-chamber, which efficiently and economically heats the same. The flues 8 and 21 open through the front wall of the oven, where they are closed by flue-stoppers, (indicated at 8<sup>a</sup> and 21<sup>a</sup>, respectively,) and the flues 17 are similarly closed by stoppers 17<sup>a</sup>. This construction permits all of said flues to be easily cleaned. The course from the stoppers is straight to the back of the oven, and a cleaning-tool will reach all parts of the flues. I consider this an improvement over constructions in which the flues cannot be got at without difficulty.

The walls 10 of the oven are double and spaced as indicated at 11, and cold air may be admitted to the space between the walls through stoppered ducts (indicated at 34) at the front of the oven. Immediately under the floor of the oven-chamber are a series of cold-air flues 28, which communicate with the space 11 in the rear wall, and these flues join at the front end in flues 35, leading to uptakes 32, which extend up through the side walls and above the flues 8 and 21 to connections (indicated at 32<sup>a</sup>) leading to the smoke-flues 36. Removal of the stoppers 34 allows a blast of cold air to be drawn under the oven through the flues 28, which has the effect of speedily cooling the oven and without manipulating the heat-flues or the fire. The oven can thus be easily and quickly regulated to the degree of heat desired.

To permit a direct draft from the furnaces to the stack, vertical flues 37 are formed in the side walls of the oven. These flues open at their lower end into the flues 17 and are controlled by dampers 27, on opening which the direct draft passes up said flues to top flues 37<sup>a</sup>, leading to the stack. By working these dampers in connection with the dampers 26 the heating of the oven-chamber can be effectively controlled, particularly in view of the cold-air circulation described above.

What I claim as new is—

In a baker's oven, the combination with a baking-chamber and furnace, of back-and-forth heat-flues extending longitudinally under the baking-chamber, back-and-forth heat-flues extending longitudinally above the bak-

ing-chamber, an uptake connecting the flues  
below the chamber with the flues above the  
chamber, a series of independent cold - air  
flues between the baking-chamber and the  
5 hot-air flues thereunder, uptakes leading from  
the cold-air flues to the stack, and dampers  
for all of said flues.

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

CHARLES BOSEMER.

Witnesses:

NELLIE FELTSKOG,  
WM. J. ROBINSON.