

(No Model.)

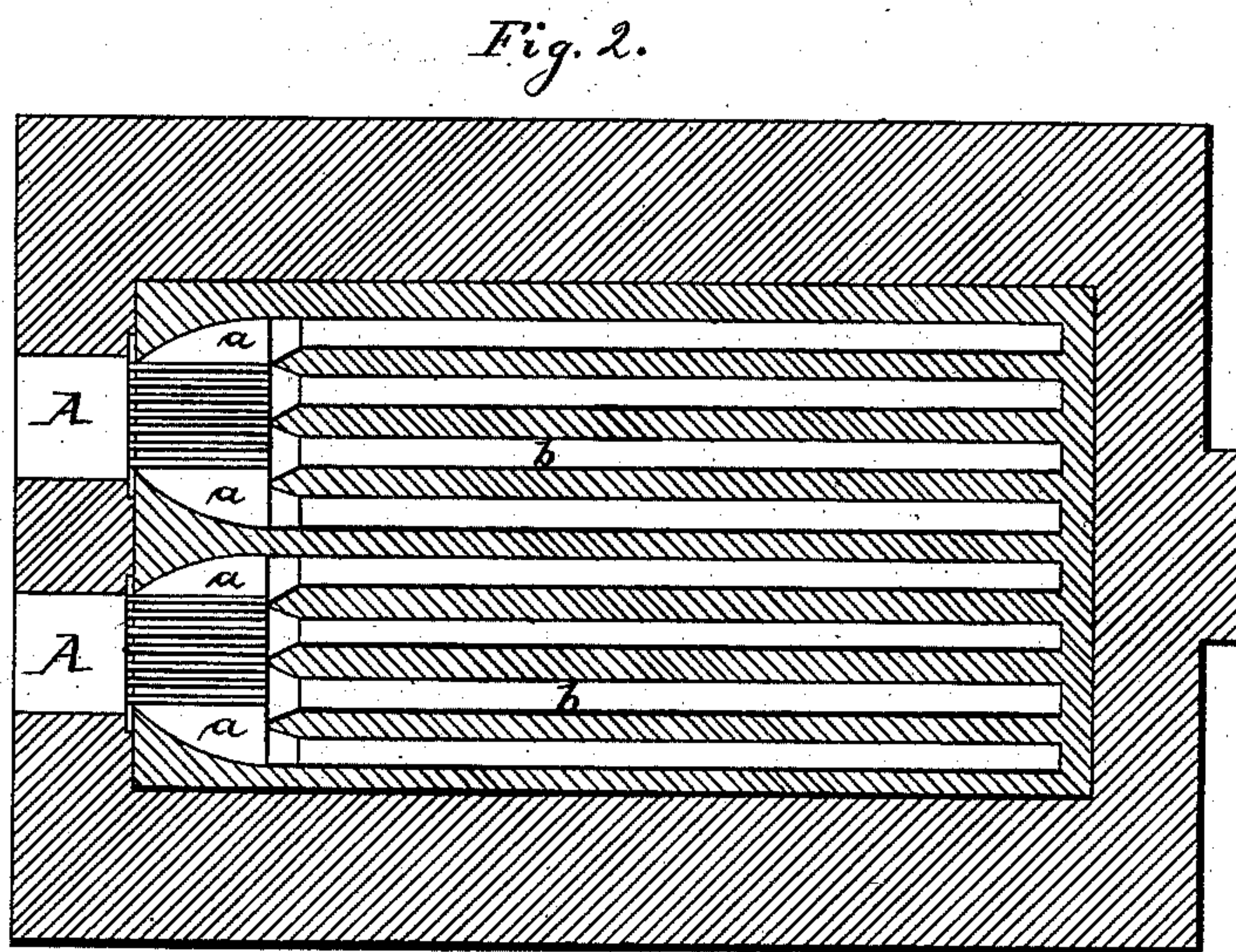
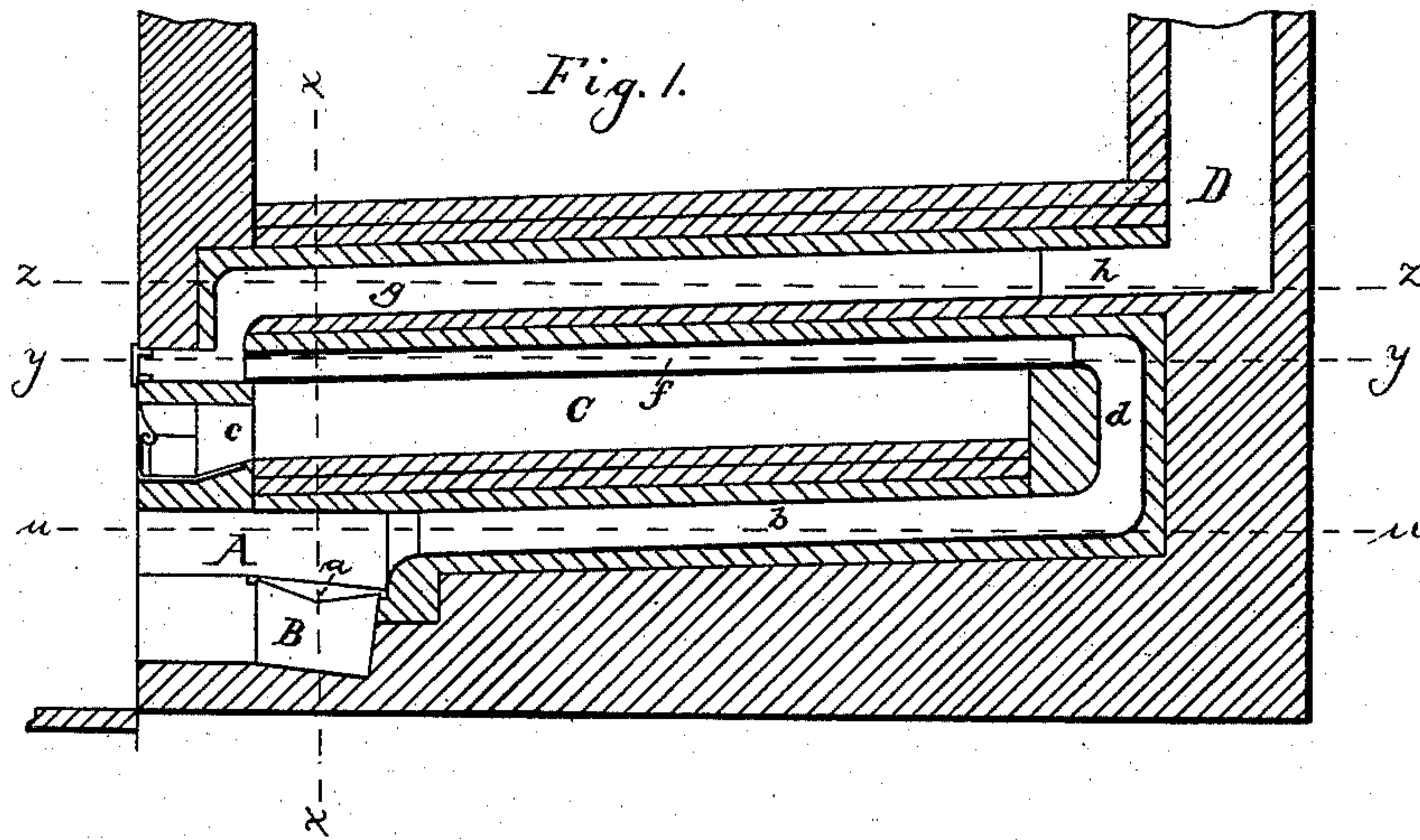
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E. A. C. PETERSEN.

BAKER'S OVEN.

No. 252,054.

Patented Jan. 10, 1882.



WITNESSES —  
F. W. Kasehagen.  
Adolph Lotz.

INVENTOR —  
Edward A. C. Petersen  
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Attorney



(No Model.)

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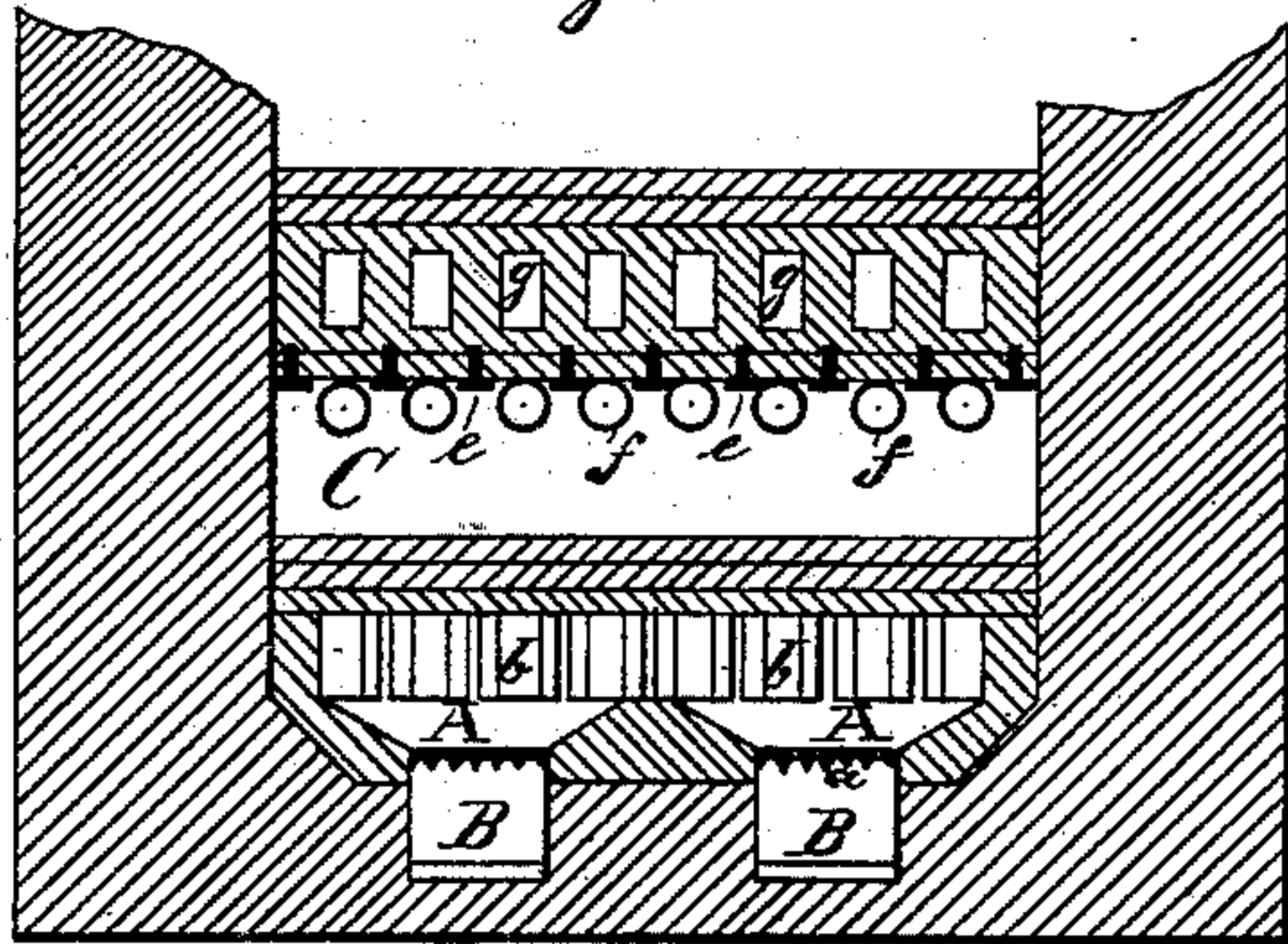
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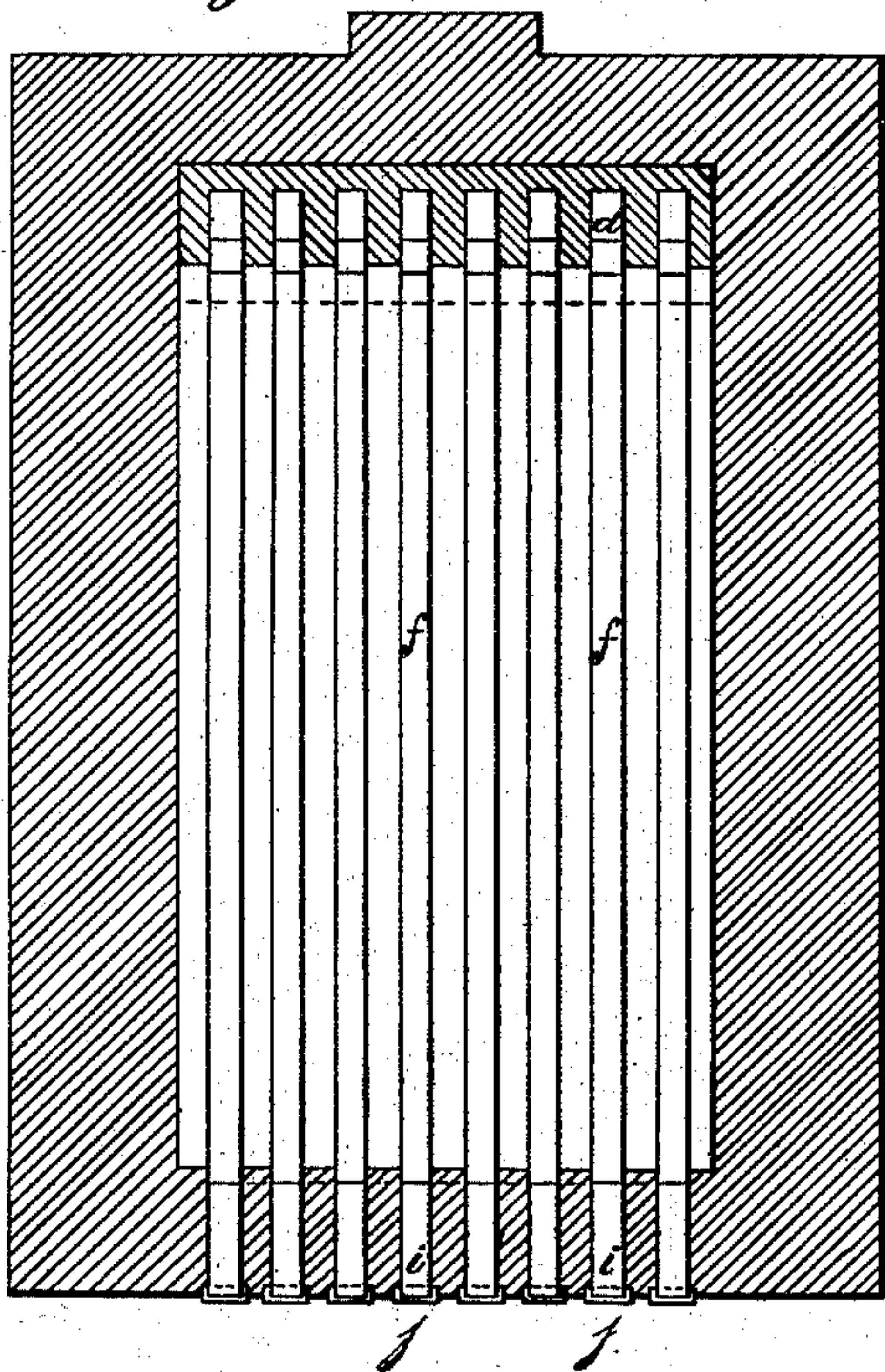
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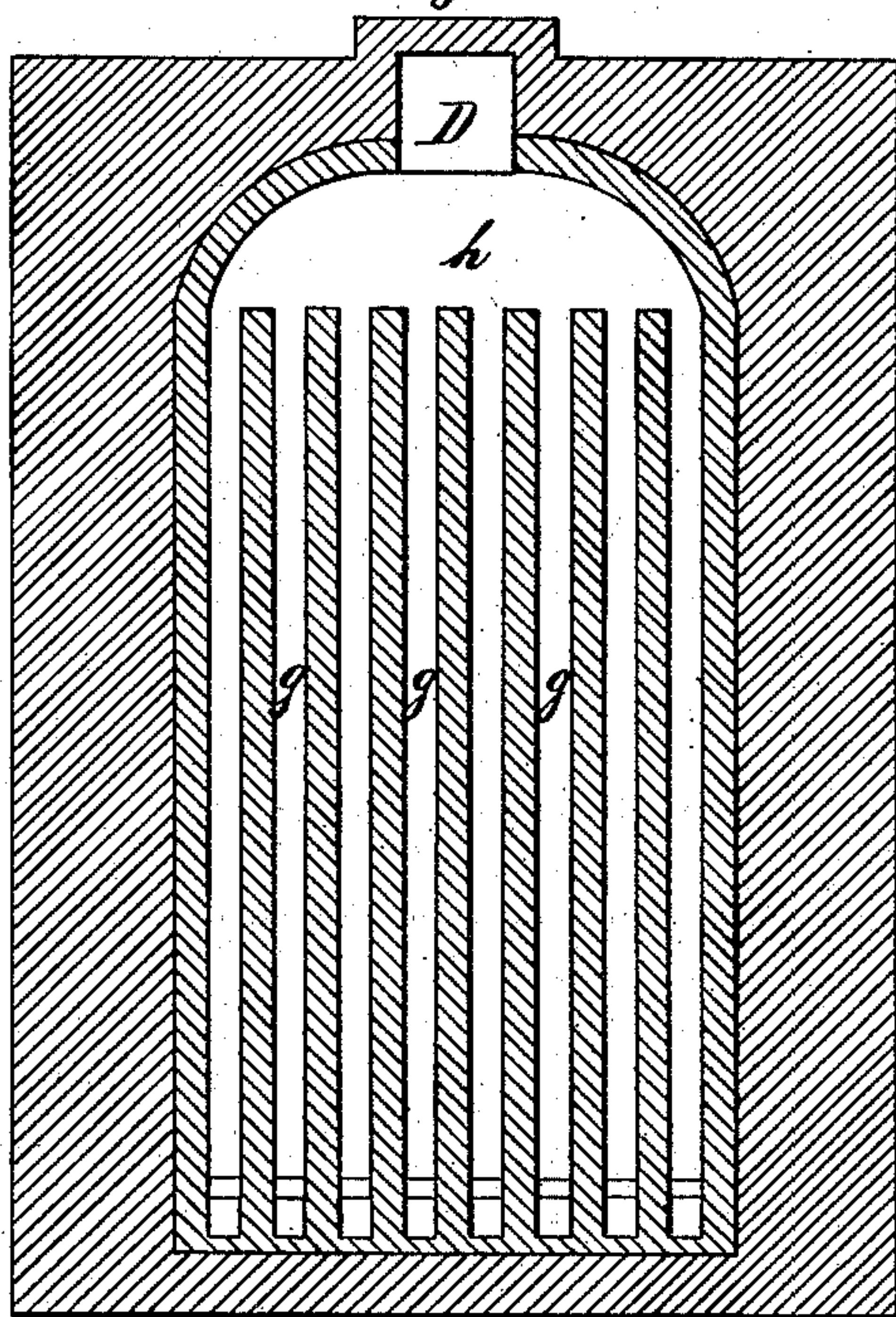
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE

EDUARD A. C. PETERSEN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF  
TO HENRY PIPER, OF SAME PLACE.

## BAKER'S OVEN.

SPECIFICATION forming part of Letters Patent No. 252,054, dated January 10, 1882.

Application filed October 19, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EDUARD A. C. PETERSEN, of 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 that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to produce an oven for bakers' use in which the hearth or baking-chamber is entirely separated from the fire-chamber and heating-flues, and in which a continuous operation is combined with an economical consumption of fuel; and the invention consists in the construction of the oven, as hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 represents a longitudinal vertical section of the oven; Fig. 2, a sectional plan on line *u u* in Fig. 1; Fig. 3, a vertical section on line *x x* in Fig. 1; Fig. 4, a sectional plan on line *y y* in Fig. 1, and Fig. 5 a sectional plan on line *z z* in Fig. 1.

Like letters represent corresponding parts in all the figures.

A A denotes the two fire-chambers; *a*, the grate bars, and B the ash-pit.

*b b* are a series of flues that lead from the fire-places underneath the hearth, and communicate at the rear end of the oven with corresponding vertical flues, *d d*.

C is the hearth or baking-chamber, the inlets *c* leading to which are above the fuel-openings of the fire-chambers, and are arranged to be closed by a trap-door in any usual manner.

The ceiling to the hearth is supported on a series of longitudinally-arranged T-bars, *e*, and intermediate to these, and underneath the ceiling, are placed a series of iron pipes, *f*, each of which communicates with one of the vertical flues *d*. These pipes *f*, forming the return-flues for the gases, each communicate again with a horizontal flue, *g*, and all these flues *g* lead into a chamber, *h*, that communicates with the chimney D.

Openings *i* are left in the front wall, one in line with each flue, for cleaning the flues of

soot and ashes, and each of these openings *i* is closed by a removable cup-shaped door, *j*.

The body of the oven is built of common brick lined with fire-brick, and the flues *b*, *d*, and *g* are built entirely of fire-brick.

A baker's oven constructed in the above-described manner has very large heating-surfaces, and the heat from the gases, absorbed by the bricks and pipes, is distributed in a manner to insure a uniform radiation of heat into the hearth from the bottom and into the baking-chamber from the top, so that bread or cakes will be baked thoroughly from all sides, which is of great importance with such ovens.

The hearth and baking-chamber, not coming into direct contact with the fire and gases, are kept entirely free of coal and ashes, so that the baking can be carried on continuously.

I am aware that it is not new to construct bakers' ovens with several tiers of baking-chambers and heating-flues passing from the furnace up to and around said baking-chambers, and such I do not claim; but I am not aware of any device where such flues enter and extend longitudinally through said baking-chambers, whereby the largest possible amount of heat is directly absorbed by the said chambers, instead of being partially absorbed by the dividing-walls, as would be the case in the devices referred to.

What I claim is—

1. A baker's oven having heating-flues *b* below the hearth and iron return-flues *f* placed underneath the ceiling of and within the baking-chamber, both flues *b* and *f* communicating through vertical flues *d*, all substantially as described and shown.

2. A baker's oven consisting of baking-chamber C, fire-chambers A, flues *b d g*, iron return-flues *f*, extending longitudinally through said baking-chamber, and chimney D, all constructed and arranged substantially in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

EDUARD A. C. PETERSEN.

Witnesses:

F. W. KASEHAGEN,  
EMIL H. FROMMANN.