

(No Model.)

H. McCUE.

KILN FOR BURNING BRICK, TILES, &c.

No. 288,466.

Patented Nov. 13, 1883.

fig 1

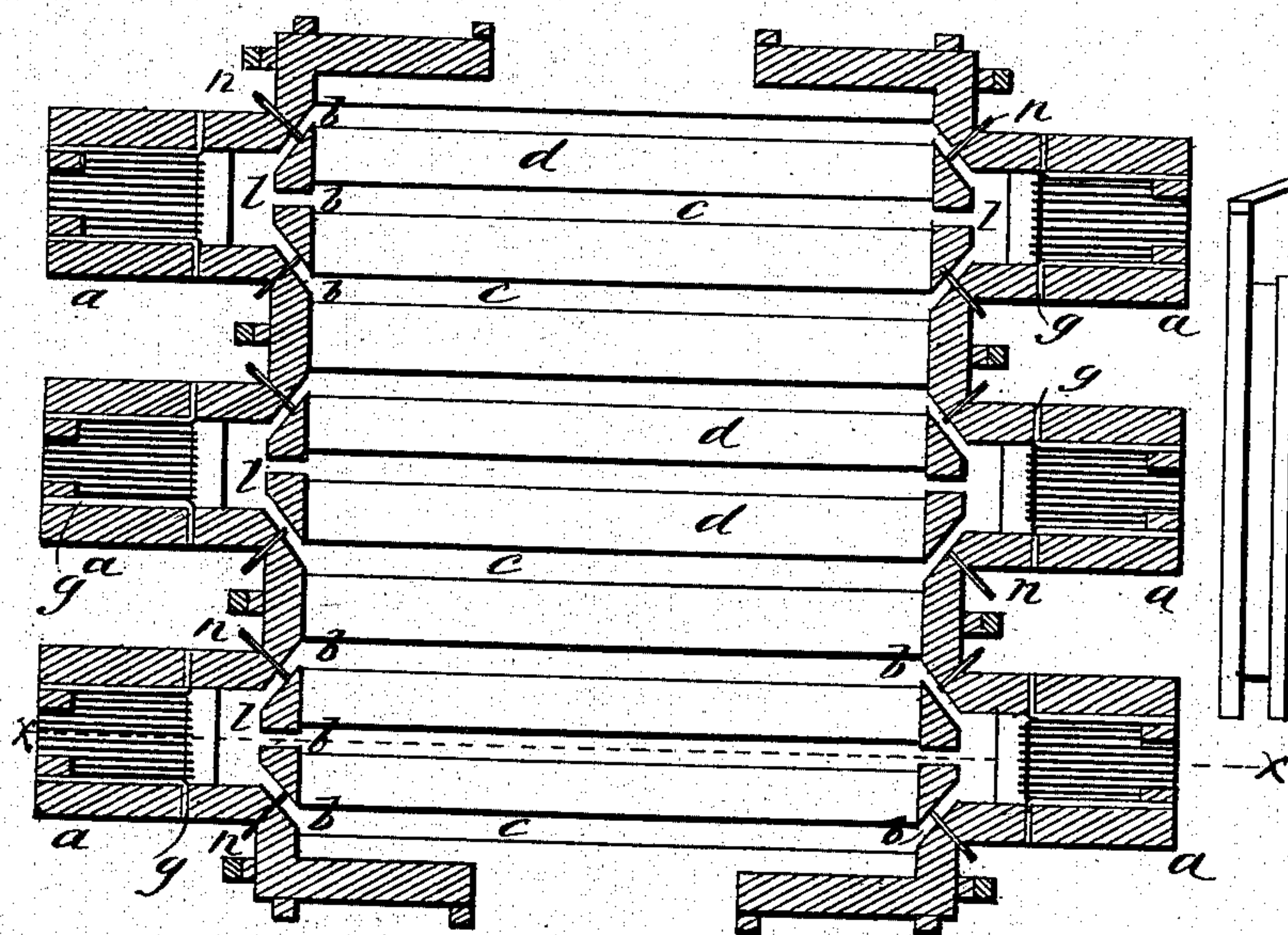


fig 5.

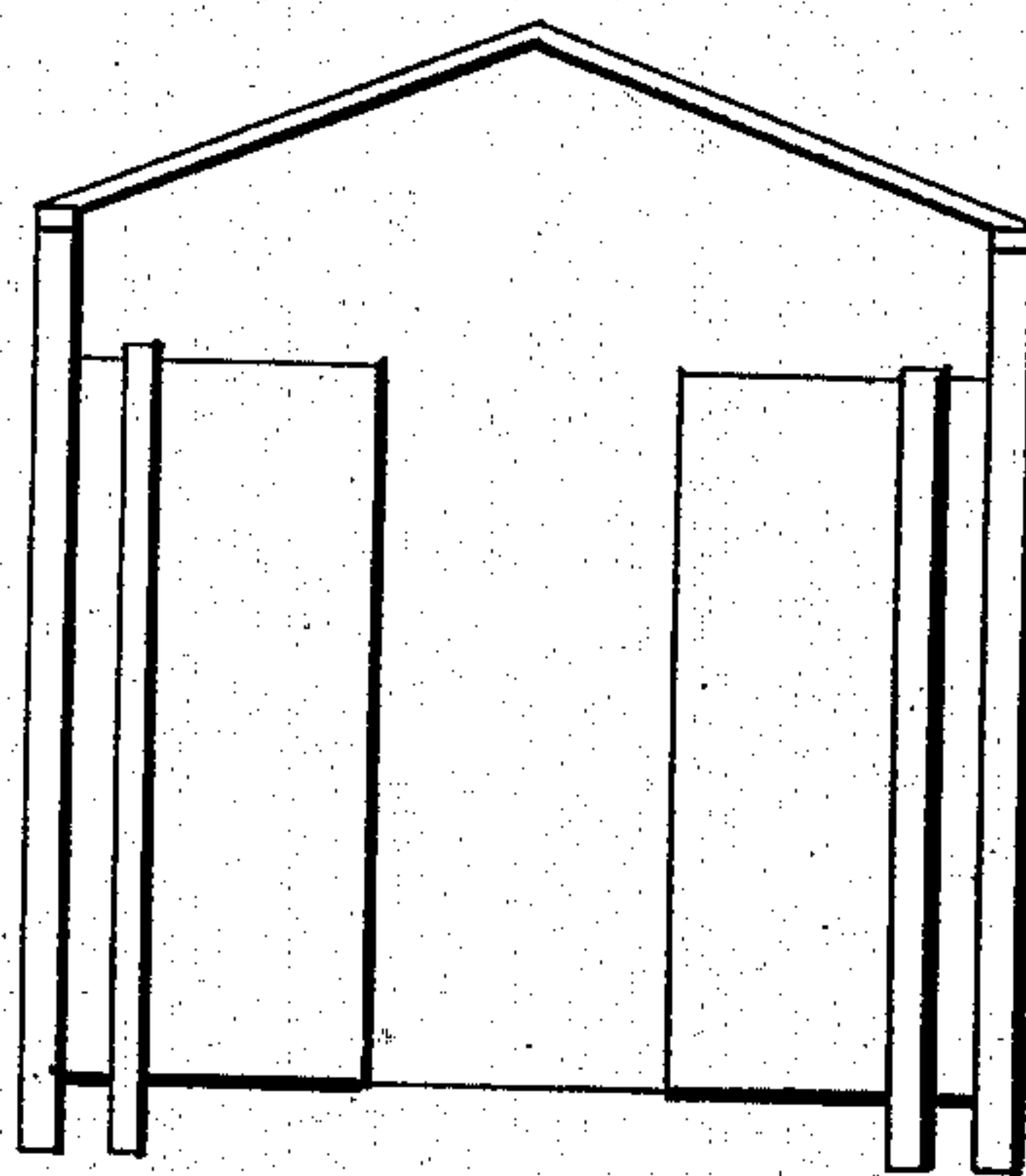


fig 4

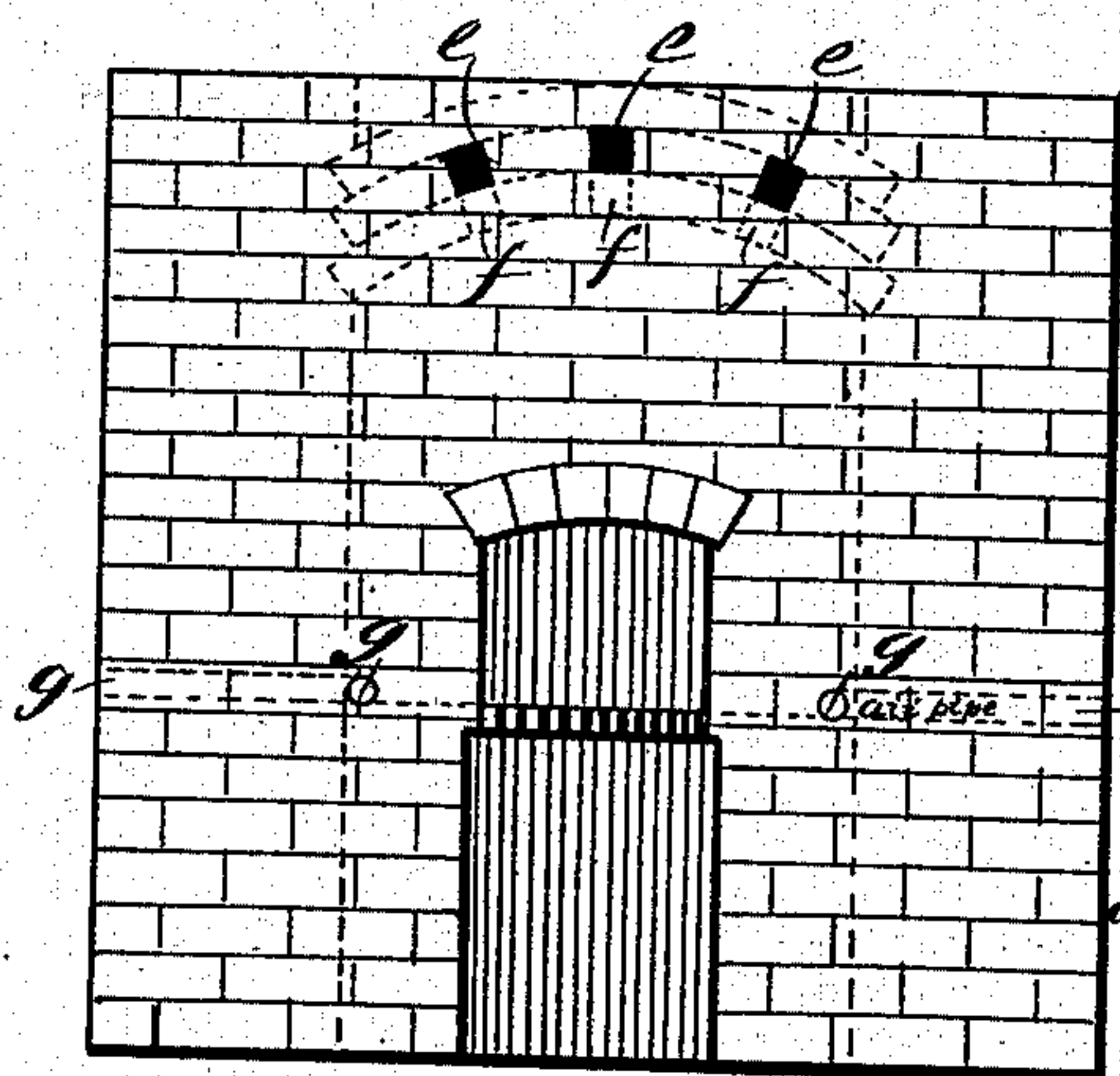


fig 2.

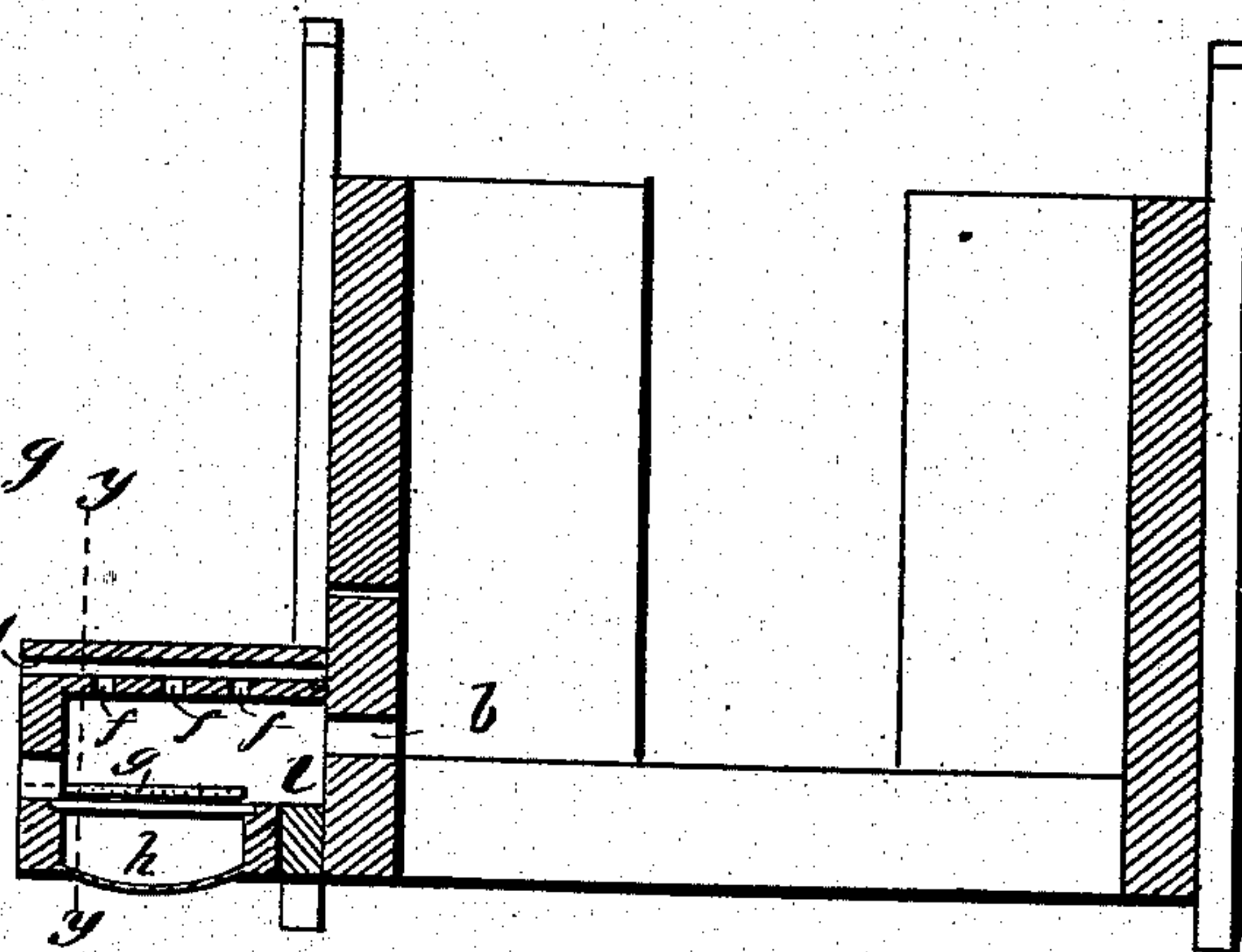
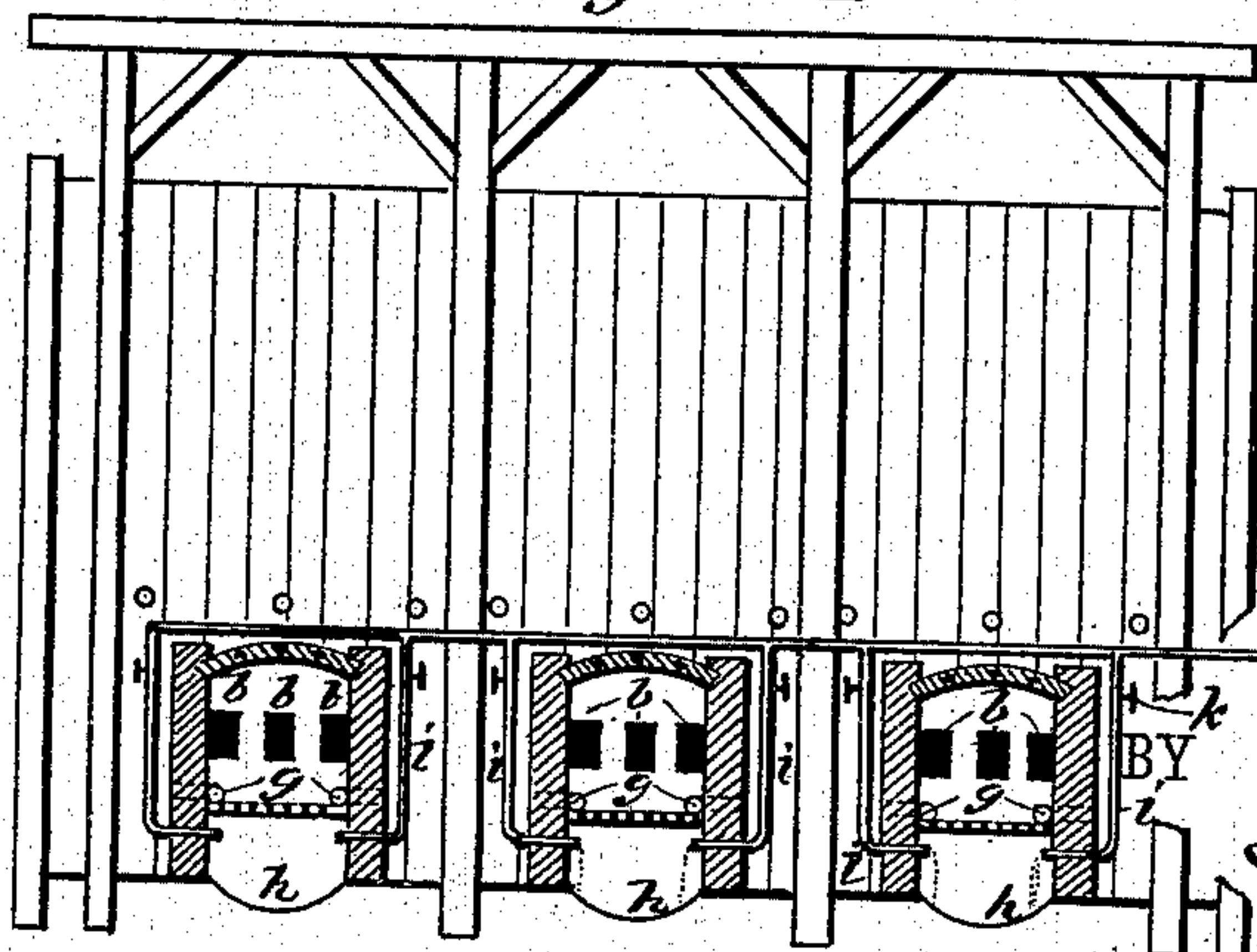


fig 3



WITNESSES:

Chas. V. Howell.
C. Sedgwick

INVENTOR:

H. McCue
Mum & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY McCUE, OF ST. LOUIS, MISSOURI.

KILN FOR BURNING BRICK, TILES, &c.

SPECIFICATION forming part of Letters Patent No. 288,466, dated November 13, 1883.

Application filed May 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY McCUE, of St. Louis and State of Missouri, have invented a new and useful Improvement in Kilns for
5 Burning Bricks, Tile, and other Wares, of which the following is a full, clear, and exact description.

The object of the invention is to improve brick - kilns, as hereinafter described and
10 claimed.

Reference is to be made to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

15 Figure 1 is a horizontal section of my improved kiln. Fig. 2 is a vertical section on line *xx* of Fig. 1. Fig. 3 is a front elevation of the kiln and transverse section through the furnaces on line *yy*, Fig. 2. Fig. 4 is an end
20 elevation of one of the furnaces, and Fig. 5 an end elevation of the kiln.

I propose to arrange a series of furnaces, *a*, on the opposite sides of the kiln, with flues *b* from the back ends passing through the side
25 walls into the kiln, which are arranged to distribute the heat at equal distances apart along the whole length of the sides and into each of the spaces *c*, equally and alike between the benches *d*, for more equal effect on the articles
30 to be burned than is effected in the common arrangements, each furnace having two or three passages, two of which are diagonal to the walls for branching off each way from the corners of the furnace, while the middle one passes
35 directly through the wall, thus making the openings into the kiln equally distant from each other and coincident with the spaces *c* between the benches. The diagonal passages may have dampers *n*, for regulating the ac-
40 tion of the heat.

For supplying the air for combustion I propose to construct the furnaces with hollow

spaces *d* in the arch, with inlet-openings *e* at the front for the admission of air, and passages
45 *f* from said spaces into the furnace, whereby the air will descend upon the fire-bed in a manner to effect better combustion by the supply of fresh air to the gases rising from the coal. I also propose to arrange perforated pipes *g*
50 along the inside of the furnace-walls, with the ends opening at the front and the sides to the air for the supply of air to facilitate the combustion of the gases, and to prevent the forming of clinkers on the side walls of the furnaces.

For preventing the forming of clinkers on
55 the grates, I propose to have water-pans *h* in the ash-pits, to be supplied by pipes *i* from any tank *j*, to be regulated by valves *k*.

Back of the fire-grate I propose to have a dead-wall, *l*, whereon the fuel may be banked
60 up to close passages *b*, and prevent the cold air from rushing into the kiln at any time when the fire may have to be stopped for replacing grate or bearing bars that may fall
65 down.

With these improvements I have a more efficient and economical kiln than others now in use, and especially one that is calculated to burn more evenly, and consequently better.

Having thus described my invention, I claim
70 as new and desire to secure by Letters Patent—

1. A brick-kiln furnace having in its arch the hollow spaces *d* and air-inlets *e f*, whereby the air will descend upon the fire-bed, as described.
75

2. The combination, with a kiln-furnace, of the perforated air-pipes *g*, arranged along the inside of the walls, whereby a more perfect combustion will take place and the formation of clinkers be prevented, as set forth.

HENRY McCUE.

Witnesses:

WM. BRENNEKE,

FERD. GETTERMANN.