

(No Model.)

L. MANNING.

BRICK KILN.

No. 368,775.

Patented Aug. 23, 1887.

Fig. 1

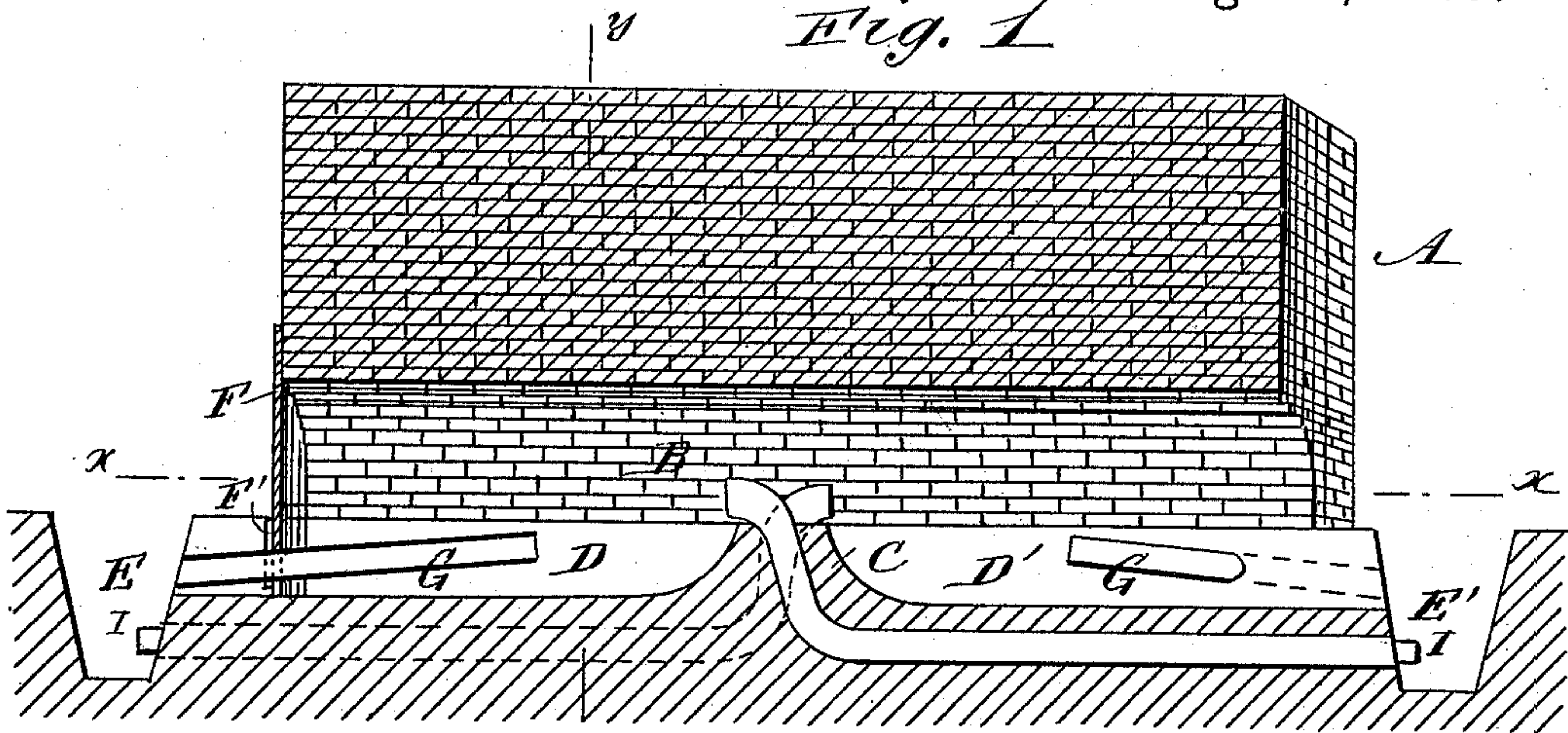


Fig. 2

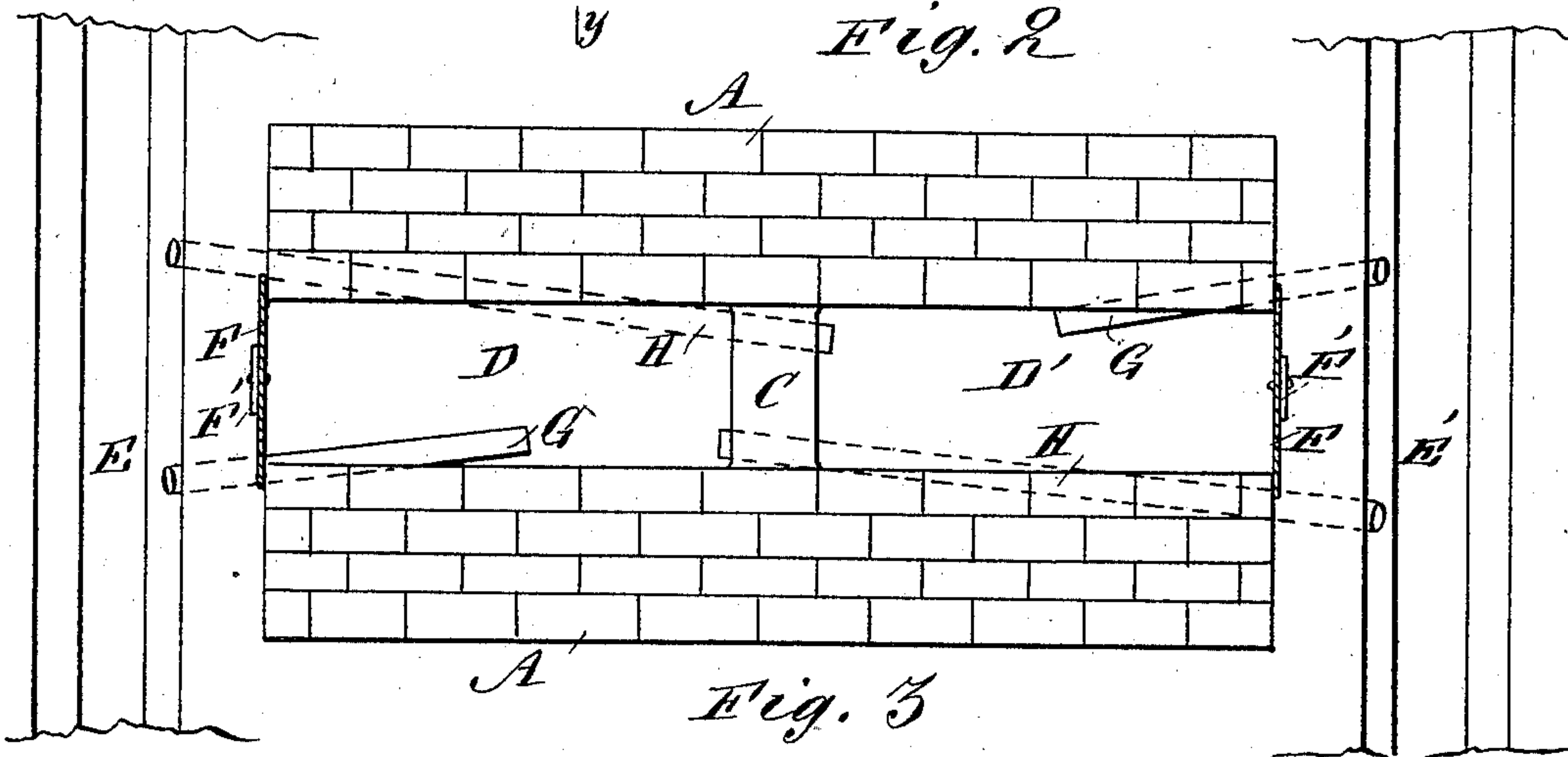
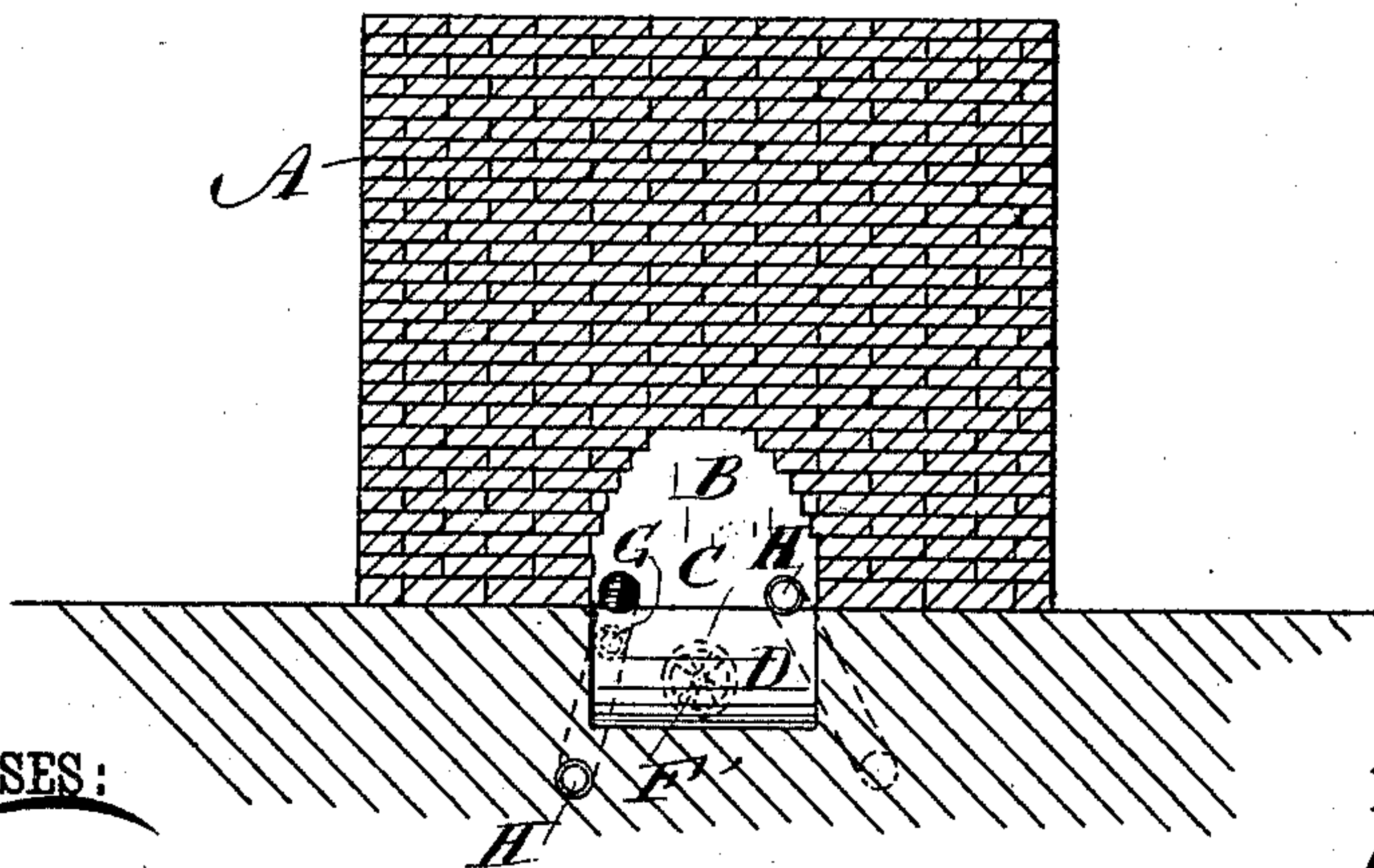


Fig. 3



WITNESSES:

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LAWARANCE MANNING, OF NOKOMIS, ILLINOIS.

BRICK-KILN.

SPECIFICATION forming part of Letters Patent No. 368,775, dated August 23, 1887.

Application filed December 1, 1886. Serial No. 220,378. (No model.)

To all whom it may concern:

Be it known that I, LAWARANCE MANNING, of Nokomis, in the county of Montgomery and State of Illinois, have invented a new and Improved Brick-Kiln, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved brick-kiln in which the heat generated is effectually utilized and distributed for burning the bricks quickly in the centers as well as at the sides of the kiln.

The invention consists of a draft-pipe leading from the outside to the pit, so as to concentrate the heat either in the center of the arch part or on both sides of the kiln simultaneously.

The invention also consists of various parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a vertical cross-section of my improvement, showing the bricks in perspective. Fig. 2 is a sectional plan view of the same on the line $x x$ of Fig. 1, and Fig. 3 is a sectional elevation of the same on the line $y y$ of Fig. 1.

The bricks, A, to be burned are set upon the ground, in the usual manner, to form the arch B, below which is the ash-pit, provided in its middle with a partition, C, dividing the pit into two parts, D and D', each of which opens on its outer end into the ditch E or E', respectively, formed in front of the two sides of the bricks A. Each end of the arch B and its respective pit part can be closed by a door, F, having a damper, F', from the respective ditch E or E', and at one side of each end of the pit, extending inward and upward, is a draft pipe or flue, G, opening into the pit midway between the respective ditch and the central partition, C. Another draft pipe or flue, H, extends from the other side of the pit and leads from the bottom of the respective ditch horizontally inward to the central par-

tion, C, and then upward to the top of the partition C, and opens upon the opposite pit part D or D'. Thus the pipe H leading from the ditch E opens upon the pit part D', and the pipe H leading from the ditch E' opens upon the pit part D. Each of the draft-pipes G and H can be opened or closed at its outer end by suitable draft doors or plugs, I, as shown in Fig. 1.

The operation is as follows: The wood fire is started in the pits D and D', in the usual manner, and the pipes H remain closed at their outer ends, while the outer ends of the pipes G are open, so that the air passing from the ditches E and E' into the parts D and D' forces the heat from the sides to the center of the kiln. As soon as that part of the kiln is sufficiently heated and the center bricks are burned, pipes G are closed at their outer ends and the draft-pipes H are opened, so that the air passes into the pit by the said pipes H, and the current of air is discharged to the center of the pit and forces the heat of the fire to the sides of the kiln, thus heating both sides simultaneously and quickly. The air which passes through the pipes H and G is heated before it enters the pit and the arch B, on account of the close proximity of the pipes to the fire in the said pit and the extreme heat to which the inner ends of said pipes are subjected.

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

1. In a brick-kiln, the combination, with a pit having a central partition, of two sets of draft-pipes, of which one set leads from the outside to the top of the central partition of the pit, and the other set leads to the pit midway between the outside and the said central partition, substantially as shown and described.

2. In a brick-kiln, the combination, with a pit having a central partition and a ditch or trench on each outer end of the said pit, of draft-pipes leading from the outside to the top of the said central partition and draft-

pipes leading into the pit midway between the said ditch and the central partition, substantially as shown and described.

3. In a brick-kiln, the combination, with a
5 pit having a central partition and a ditch or trench on each outer end of the said pit, of draft-pipes leading from the outside to the top of the said central partition, draft-pipes

leading into the pit midway between the said ditch and the central partition, and means for closing the outer ends of the said draft-pipes, substantially as shown and described.

LAWARANACE MANNING.

Witnesses:

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