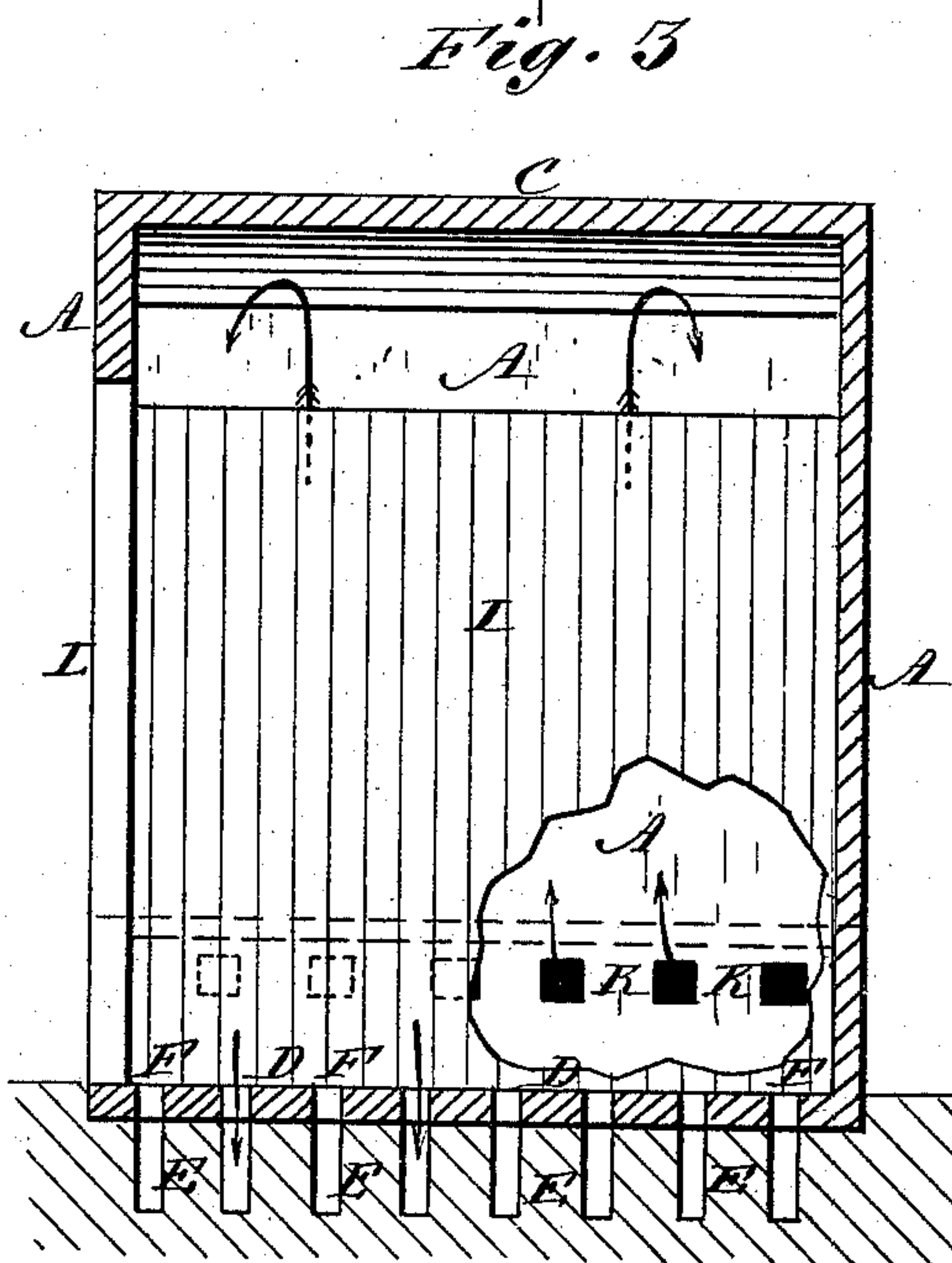
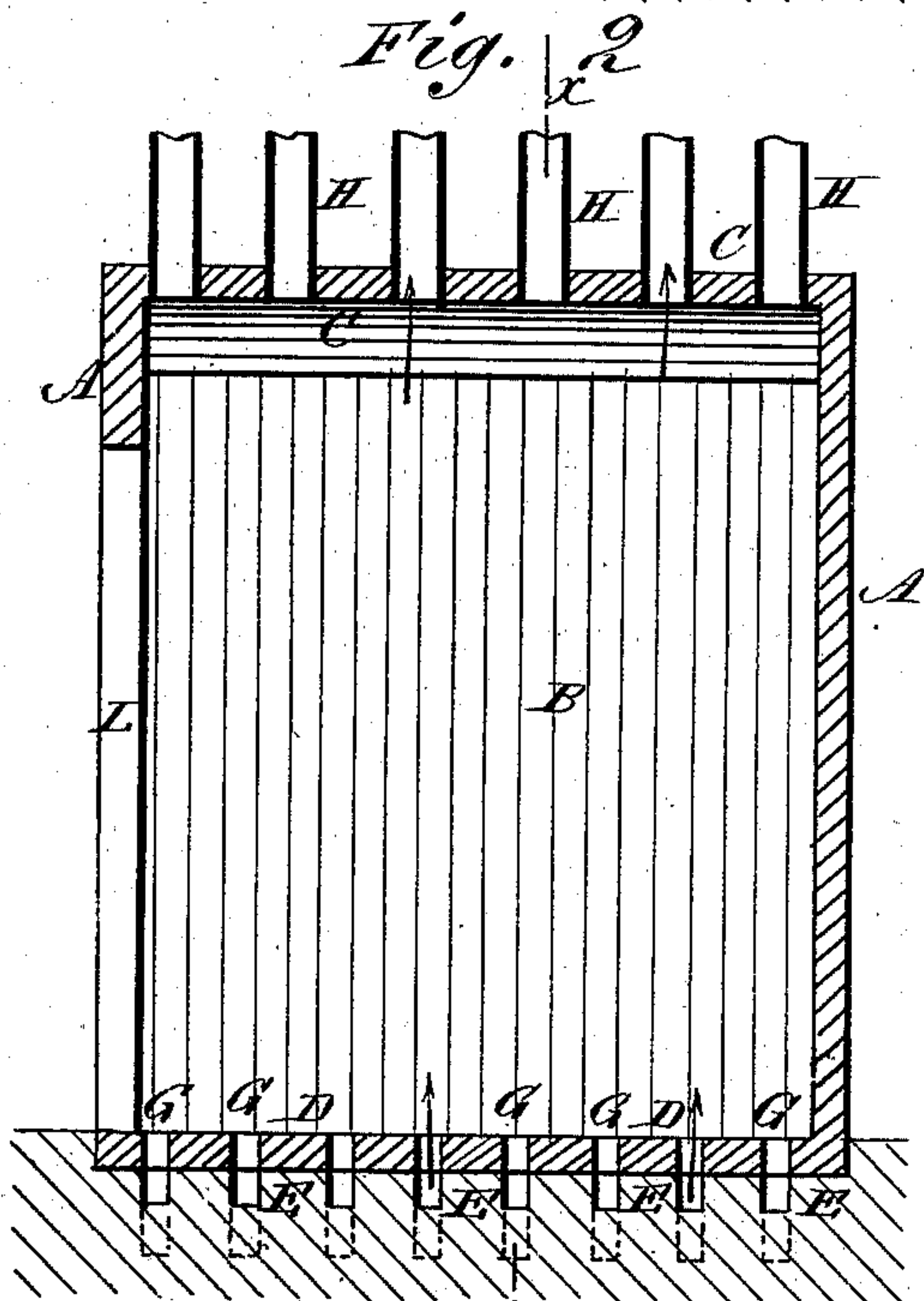
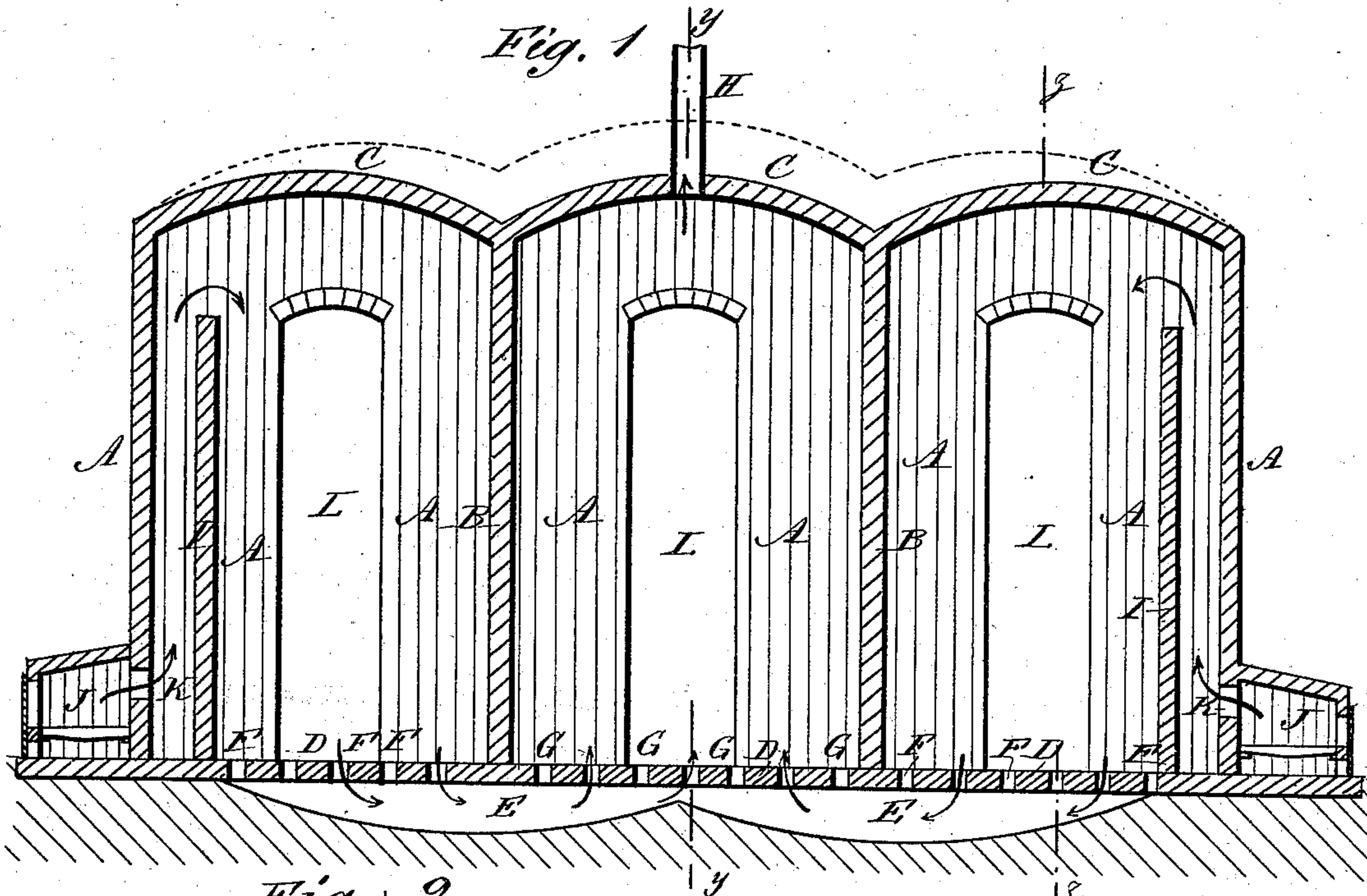


(No Model.)

E. DAVENPORT.
Tile and Brick Kiln.

No. 239,460.

Patented March 29, 1881.



WITNESSES:

C. Neveu
C. Sedgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

EBER DAVENPORT, OF WAYNESVILLE, ILLINOIS.

TILE AND BRICK KILN.

SPECIFICATION forming part of Letters Patent No. 239,460, dated March 29, 1881.

Application filed December 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, EBER DAVENPORT, of Waynesville, in the county of De Witt and State of Illinois, have invented a new and useful Improvement in Tile and Brick Kilns, of which the following is a specification.

Figure 1 is a sectional elevation of the improvement, taken through the line *x x*, Fig. 2. Fig. 2 is a sectional elevation taken through the line *y y*, Fig. 1. Fig. 3 is a sectional elevation taken through the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish kilns for burning bricks, tiles, and earthenware, so constructed that the contents of the kilns will be burned evenly, and with a much less expenditure of fuel than is possible in kilns constructed in the ordinary manner.

The invention consists in the combination, with the outer walls, of permanent division-walls and fire-walls, and the arched roofs, whereby the products of combustion are deflected downward, and are prevented from passing directly from one section of the kiln to another, as will be hereinafter fully described.

A are the outer walls of the kiln, which are built of ordinary brick, and are bound and braced in the ordinary manner, to prevent them from springing or bending. The kiln is divided into three parts or sections by two walls, B, which are built of fire-brick. Each part or section of the kiln is covered by an arched or crown roof, C.

The inner walls, B, may be of the same height as the outer walls, A, as shown in full lines in Fig. 1, or the inner walls, B, may be higher than the outer walls, A, giving to the arched or crown-roofs C the positions shown in dotted lines in Fig. 1.

Beneath the floor D of the kiln are formed channels, trenches, or flues E, leading from openings F in the floors D of the side sections to openings G in the floor D of the middle section.

In the roof C of the middle section, along the central line and at suitable distances apart, are formed openings, in which are secured the lower ends of iron stacks H, of such a height as will give the necessary draft to the kiln.

At a little distance from and parallel with the outer walls, A, of the side sections are built the fire-walls I, extending nearly to the roofs C of the said sections.

Along the outer sides of the outer walls, A, of the side sections of the kiln are built a suitable number of furnaces, J, from the fire-chambers of which openings K lead through the lower parts of the said outer walls, A.

In the outer walls, A, at the ends of the sections, are formed openings L, for convenience in putting in and taking out the wares.

With this construction the tiles, bricks, or wares can be put in and arranged in any convenient order.

In using the kiln, when the wares have been put in and the fires started, the products of combustion pass through the openings K, rise through the spaces between the fire-walls I and the outer walls, A, strike against the arched roofs C, and are deflected downward among the wares placed in the side sections. The products of combustion pass, through the openings F, flues E, and openings G, into the middle section, pass up among the wares placed in the said middle section, and escape through the stacks H.

With this construction the amount of fuel required is very much lessened, and the wares are burned evenly, as the products of combustion circulate evenly through all parts of the kiln.

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

The combination, with the building A, provided with partition-walls B, fire-walls I, arched roof C, and perforated floors G, of the furnaces J, flues E, and smoke-stacks H, substantially as described, whereby the draft is deflected from the roofs of the outer apartments, and passes through the flues into the middle chamber, and thence out at the smoke-stacks.

EBER DAVENPORT.

Witnesses:

CARLON C. ALDRICH,
WM. W. DUNHAM.