

D. Barker.
Drier.

N^o 75113

Patented Mar. 3, 1868.

Fig. 1

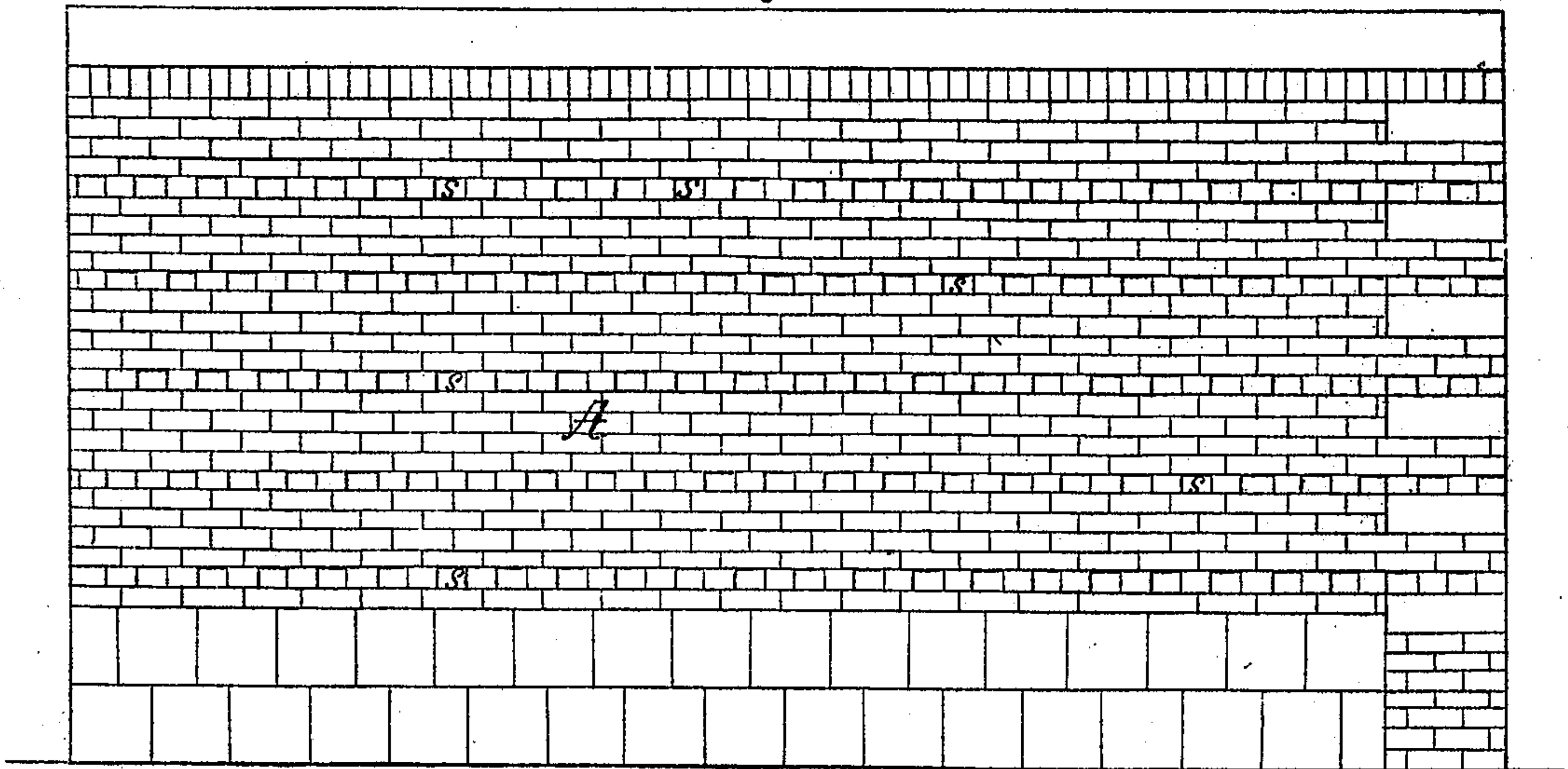
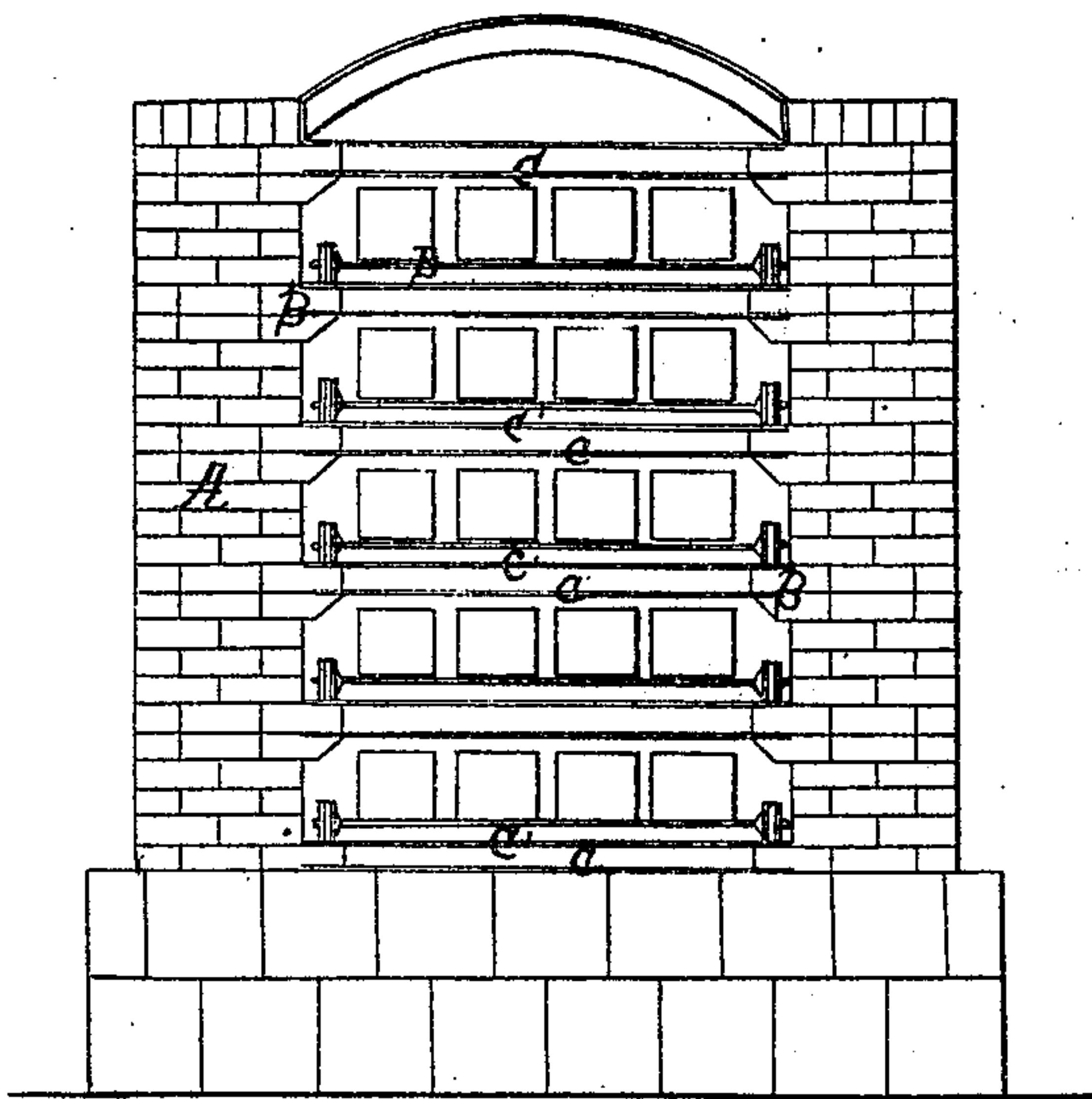


Fig. 2



WITNESSES
Edw. Vaughan
R. Mordant Vaughan

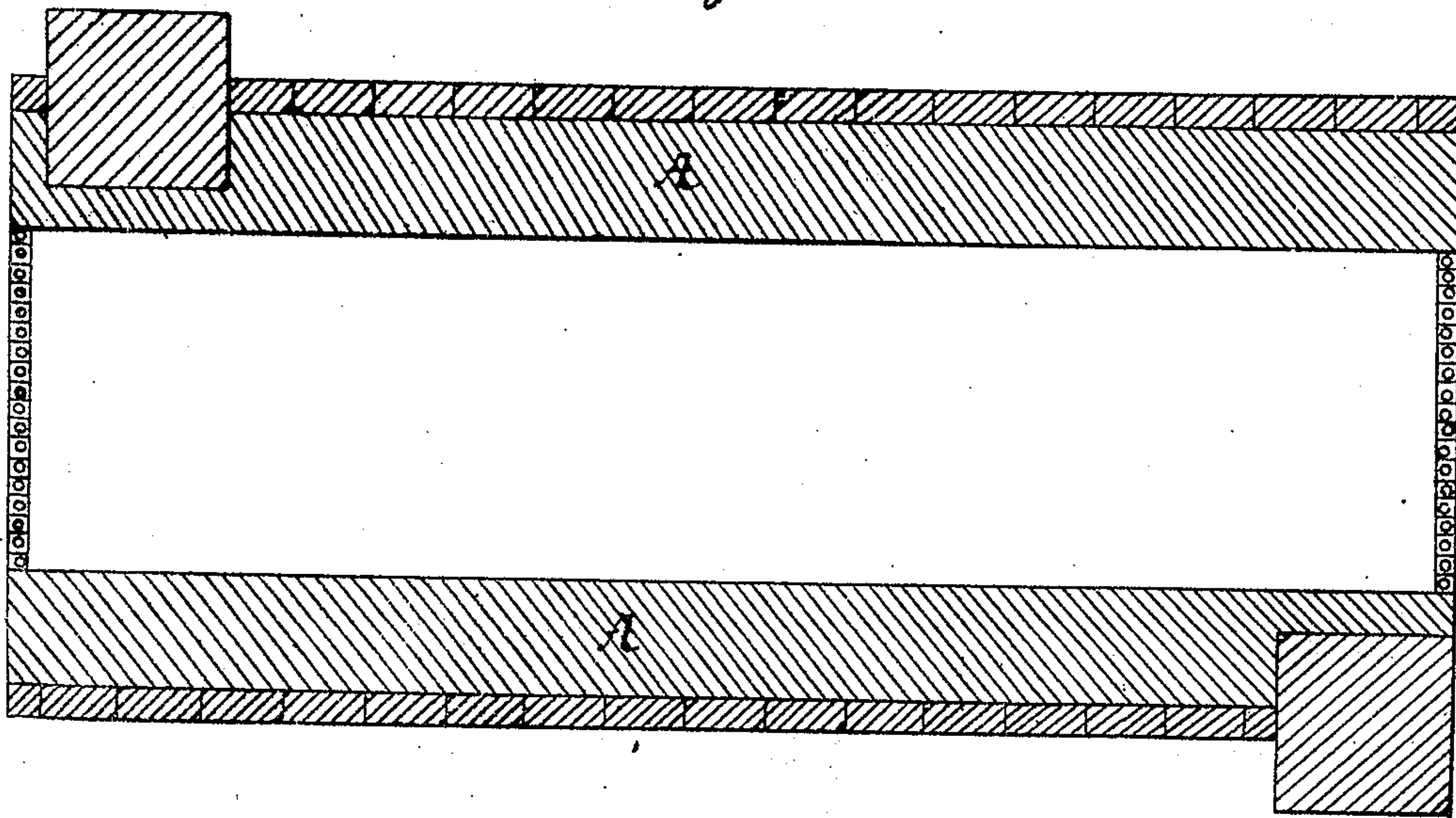
INVENTOR
David Barker

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Fig. 3



WITNESSES

E. R. Vaughan

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INVENTOR

David Barker

United States Patent Office.

DAVID BARKER, OF NORTHFLEET, ENGLAND.

Letters Patent No. 75,113, dated March 3, 1868.

IMPROVEMENT IN DRIERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DAVID BARKER, of Northfleet, in the county of Kent, England, have invented certain "Improvements in the Construction of Chambers for Drying Artificial Fuel and other Substances;" and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a drying-chamber.

Figure 2 a transverse section, and

Figure 3 a plan view of the same.

The outer walls A A of my improved drying-chamber are built of bricks, or of other suitable material adapted to the purpose, angle-iron plates, B B, fig. 2, being introduced into or attached to the walls, the same forming rails for the support of the movable trays hereinafter mentioned, and for the support of transverse bars; to which are suspended the steam or hot-air pipes, which I sometimes employ for the purpose of heating the chamber in connection with said movable trays, and also for the support of transverse division-plates C C', which I also contemplate using for dividing the chamber into horizontal compartments, and which serve not only as partitions but as conducting-flues for hot air or steam to heat the chamber. When the drying-chamber, enclosed by the walls A A, is subdivided horizontally by hot-air or steam flues, formed by the double division-plates C C', the trays D, upon which the blocks of fuel or other material to be dried are placed, may be made to pass in loosely, as shown in fig. 2 of the drawings; but I contemplate constructing said trays D of iron, of such a width as to extend entirely across the width of the chamber, fitting closely therein, and connecting them with each other by interlocking projections secured by a transverse pin, so that they may be united closely and yet be readily detached. These closely-fitting trays D are to be furnished with wheels to run upon the angle-iron bars B, so that when a sufficient number thereof are inserted in the chamber they shall themselves form an upper plate for the flue c, in the place of the stationary plate C' hereinbefore mentioned, and shown in the drawings, fig. 2, or may be used alone to divide the chamber into horizontal compartments, the plates C and C' being entirely dispensed with, longitudinal hot-air or steam pipes, suspended from transverse bars extending across at proper intervals below the angle-iron bars, being in such case used to heat said horizontal compartments. Along the lower part of each of the subordinate horizontal compartments of the chamber obtained in either of the modes hereinbefore described, outlet-apertures s s, fig. 1, are pierced through the walls A A, to permit and secure an escape of the vapors resulting from the process of drying. Such outlets may be provided by means of perforated bricks inserted in the walls for the purpose, and the removal of the vapors may be facilitated by the employment of a fan or fans, or other analogous arrangements. The chamber is closed at each end by iron shutters, so as to perfectly confine the heat during the operation of drying, shutters being provided, if found desirable, for closing the outlets. The chamber may also be constructed with a space in the centre thereof, extending longitudinally from end to end, and extending from the top to the bottom, into which steam or hot air may be introduced to facilitate the drying processes in the same. When several chambers are placed in juxtaposition to each other, channels or spaces may be provided between the respective chambers for the escape of the vapors resulting from the process of drying, such escape being facilitated by means of fans or other analogous arrangements.

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

Chambers for drying artificial fuel and other substances, subdivided into horizontal compartments, as hereinbefore described, by permanent or removable partitions, and provided with series of lateral apertures arranged along the lower part of each compartment for the escape and withdrawal of vapors therefrom, the whole being constructed and arranged substantially as herein set forth.

DAVID BARKER.

Witnesses:

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