

W. GWYNN.
DOORS FOR LIME-KILNS.

No. 181,238.

Patented Aug. 15, 1876.

Fig. 1.

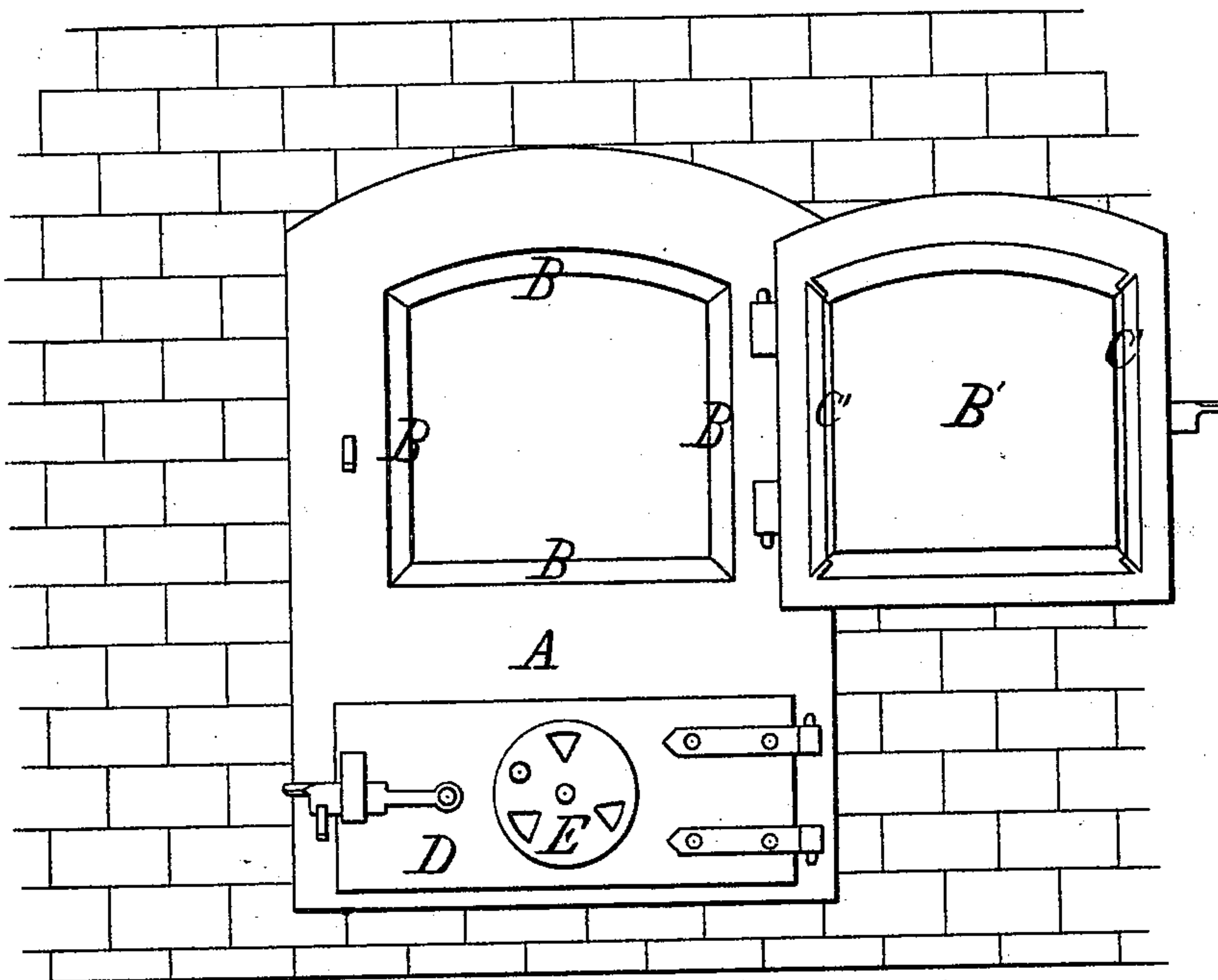
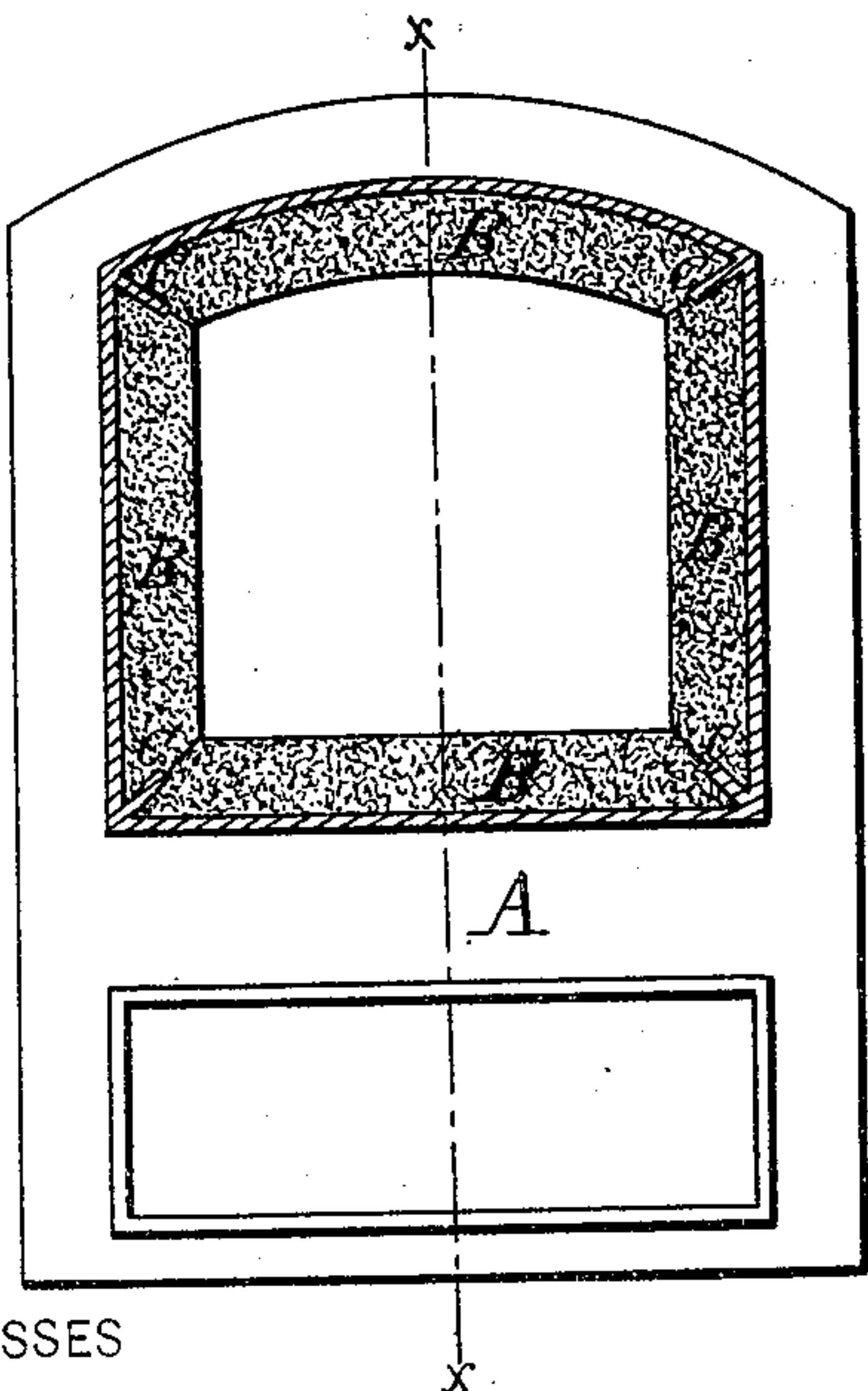


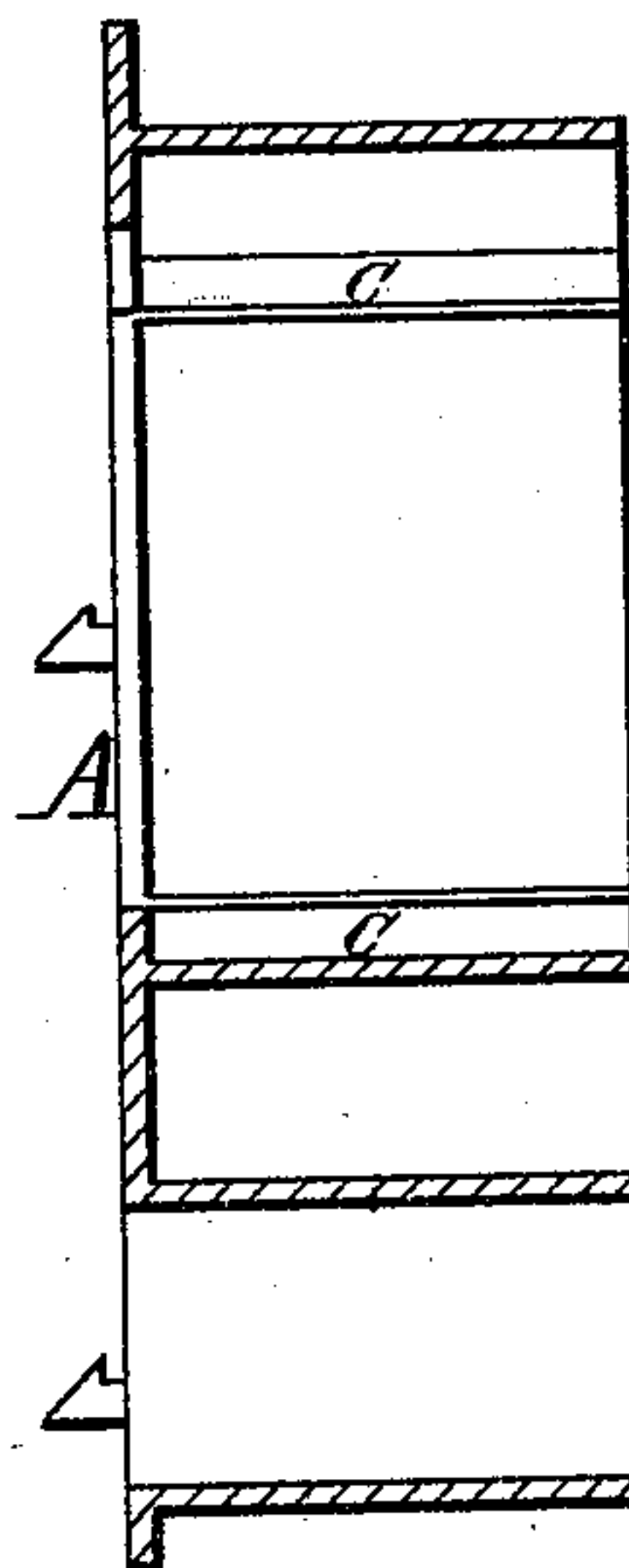
Fig. 3.



WITNESSES

Mo. P. Utley.
J. West Wagner.

Fig. 2.



INVENTOR

William Gwynn
by J. H. H. H. H.
his ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM GWYNN, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN DOORS FOR LIME-KILNS.

Specification forming part of Letters Patent No. **181,238**, dated August 15, 1876; application filed August 7, 1876.

To all whom it may concern:

Be it known that I, WILLIAM GWYNN, of the city of Sacramento, in the State of California, have invented a new and useful Improvement in Doors and Door-Frames for Kilns, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings forming a part of this specification, Figure 1 is a front view of my improved door and door-frame as applied to a kiln. Fig. 2 is a vertical transverse section of frame, forming the fire-door and ash-box cast in one piece. Fig. 3 is a view in section, showing construction of doorway.

My invention relates to a door and doorway for lime or other kilns, composed of a frame of cast-iron, which forms the fire-door and ash-box. The fire-door and doorway are lined with fire-tiles, and have flanges forming grooves into which the fire-tile is fitted, effectually covering all parts of the iron frame, and protecting the iron from the intense heat to which doors of lime-kilns are subjected. The door of the ash-box has placed upon it a draft-regulator, by means of which an even temperature within the kiln may be maintained.

To all familiar with lime or other kilns it is a well-known fact that the ordinary iron doors and frames are rapidly destroyed by the heat causing them to burn and warp, so that they have to be taken from the kiln, which requires considerable time, frequently requiring a portion of the kiln to be taken down so as to take them out.

In the drawings, A represents the frame of the door and ash-box cast in one piece. B, B,

and B' represent the fire-tiles fitted, so that upon the interior of the door an entire fire-proof surface presents itself to the fire. C C represent the flanges in each corner of the doorway; D, the door of ash-box with the draft-regulator E. C' represents flanges upon the door.

This arrangement of doors for kilns has been found in practice to be far superior to the ordinary ones in use, and saves to the manufacturer of lime a considerable outlay annually.

It will be seen that the fire-tiles may be placed in the door at any time, even during the process of lime-burning, and requires but a few moments labor.

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

1. In a door-frame for lime or other kilns, the combination of the fire-door and ash-door cast in one frame, the fire-door and doorway having flanges arranged upon them for receiving fire-tiles, substantially as and for the purpose set forth.

2. In a door-frame for lime or other kilns, the combination of the fire-doorway and ash-box cast in one frame, the fire-door and doorway having flanges arranged upon them for receiving fire-tiles, and the draft-regulator attached to ash-door, substantially as and for the purpose set forth.

3. In a door for kilns, the combination of the flanges C, C, and C', fire-tiles B B', ash-box D, and draft-regulator E, substantially as arranged, and for the purpose set forth.

WILLIAM GWYNN.

Witnesses:

J. C. HEALD,
S. M. POOL.