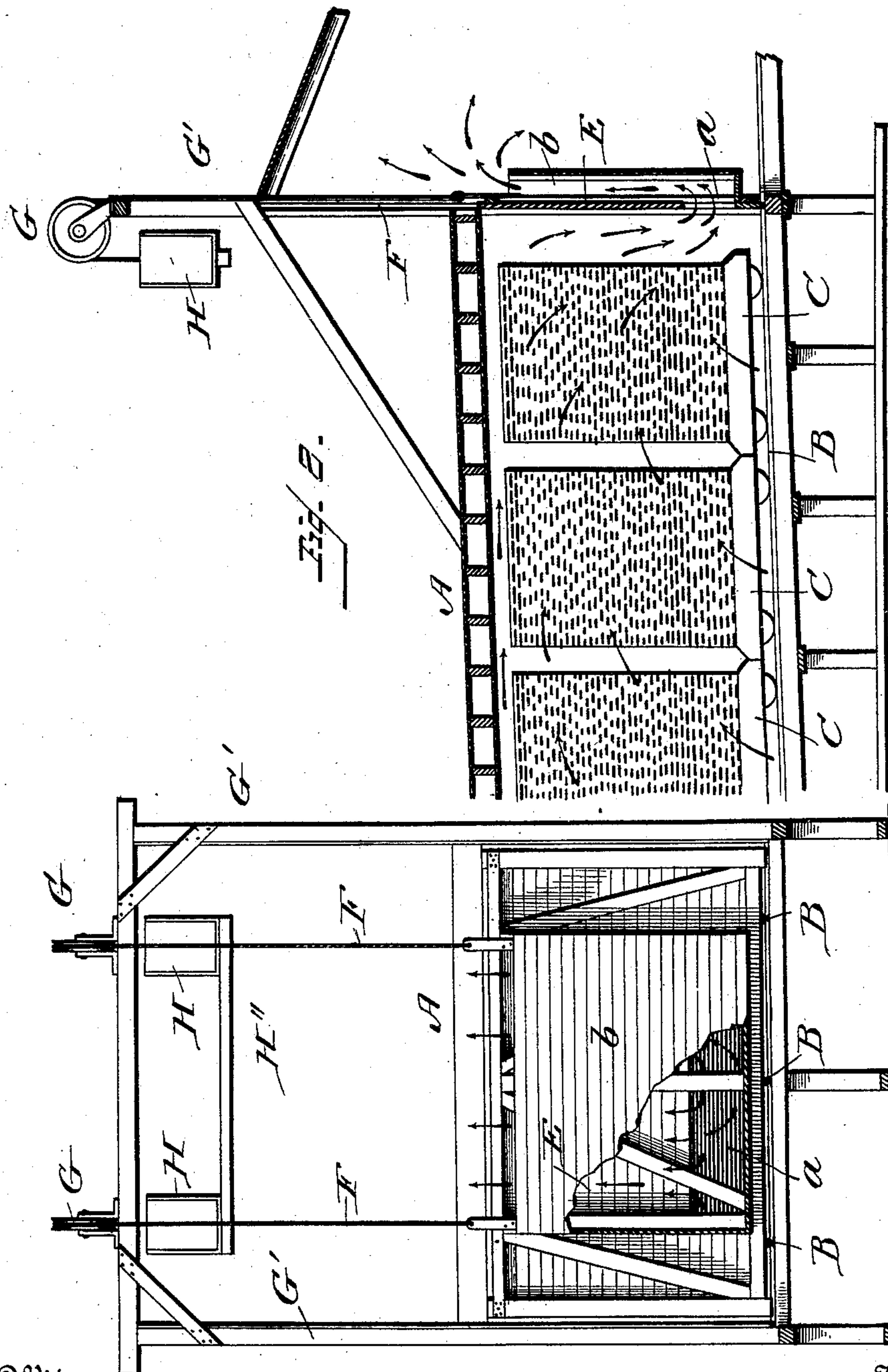


(No Model.)

A. T. BEMIS.
KILN FOR DRYING LUMBER.

No. 472,600.

Patented Apr. 12, 1892.



Witnesses
[Signature]
P. J. Rogers.

Fig. 1.

Inventor
Albert T. Bemis
By his Attorney
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UNITED STATES PATENT OFFICE.

ALBERT T. BEMIS, OF LOUISVILLE, KENTUCKY.

KILN FOR DRYING LUMBER.

SPECIFICATION forming part of Letters Patent No. 472,600, dated April 12, 1892.

Application filed September 24, 1891. Serial No. 406,678. (No model.)

To all whom it may concern:

Be it known that I, ALBERT T. BEMIS, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Kilns for Drying Lumber, &c.; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in drying-kilns for lumber and the like; and it has for its objects, among others, to provide for the proper holding of the heat near the bottom of the kiln and for conveying it out where it will not annoy and interfere with the workmen in loading the cars.

Heretofore it has been proposed to provide an opening in the floor at the green end of the kiln or chamber for the escape of the moist air, which is quite objectionable for the reason that in a short time it will rot the building, and where three or more rooms are connected together the middle rooms do not get the required ventilation, which causes the lumber therein to mold and stain and decay, which is of course a great detriment to its market value. Again, it has been proposed to have the doors up about six inches from the floor, and the moist air escaping from the kiln makes it almost impossible for the men to work loading the cars on the platform. It has also been proposed to provide a stack or opening from the ceiling at the green end of the kiln. This has proved very unsatisfactory on account of its natural tendency to draw all the heat from the kiln unless a curtain is provided, which is always getting out of order and in a short time is torn down by the cars rubbing against it. I overcome these difficulties by the construction and arrangement of parts shown in the accompanying drawings.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the

accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an end view of a drying-kiln constructed in accordance with my invention with a portion broken away. Fig. 2 is a central vertical longitudinal section through the same.

Like letters of reference indicate like parts in both views where they occur.

Referring now to the details of the drawings by letter, A designates a portion of the building or kiln, which, except as hereinafter specified, may be of any well-known or approved form of construction. It is shown as but one story in height and suitably supported.

B are the rails or tracks upon which the cars C are designed to travel in the usual manner. These cars may be of any of the well-known or approved styles and the lumber is piled thereon in the usual way. At the green end, or the end where the cars are loaded into the building, I provide a movable door E, which is designed to close the said end. This door may be arranged to slide horizontally in any suitable manner; but it is preferred to arrange it to slide vertically in suitable guides, as shown, and in the present instance it is shown as suspended from the cords or chains F, which are passed over the pulleys G, carried by shafts suitably journaled at the upper ends of the uprights G' and having their ends attached to the weights H, which may be connected by the cross-bar H', as seen in Fig. 1. This door is provided near its lower edge with an opening *a*, which communicates with the stack or vertical conduit *b*, which is formed by being attached to the outer face of the door at a distance therefrom, as seen best in Fig. 2, to provide the vertical passage-way or opening, as seen. This conduit is closed at the bottom, as shown.

The operation will be readily understood. The course of the air is indicated by the arrows. When it is desired to place a fresh car in the building, the door, with its conduit, is moved and the car moved into the kiln. The door is then closed and the air is forced to traverse in the direction of the arrows down to the bottom of the chamber, and thence through the opening at the bottom of the door and up the conduit and out, as seen in Fig. 2.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

- 5 1. In a drying-kiln, a vertically-movable door provided with an opening near its bottom and a permanent conduit secured to and movable with the door and communicating with the interior of said drying-kiln, as set
10 forth.
2. The combination, with the kiln and its tracks, of the movable door at one end of the kiln, provided with an opening near its bot-

tom, counterbalance-weights for the door, and a conduit secured on and permanently fixed 15 parallel with the outer face of the door, with its upper end always open, communicating with the said opening and closed at its bottom, as shown and described.

In testimony whereof I affix my signature in 20 presence of two witnesses.

ALBERT T. BEMIS.

Witnesses:

ROB. T. ELLIOTT,
J. S. WOODS.