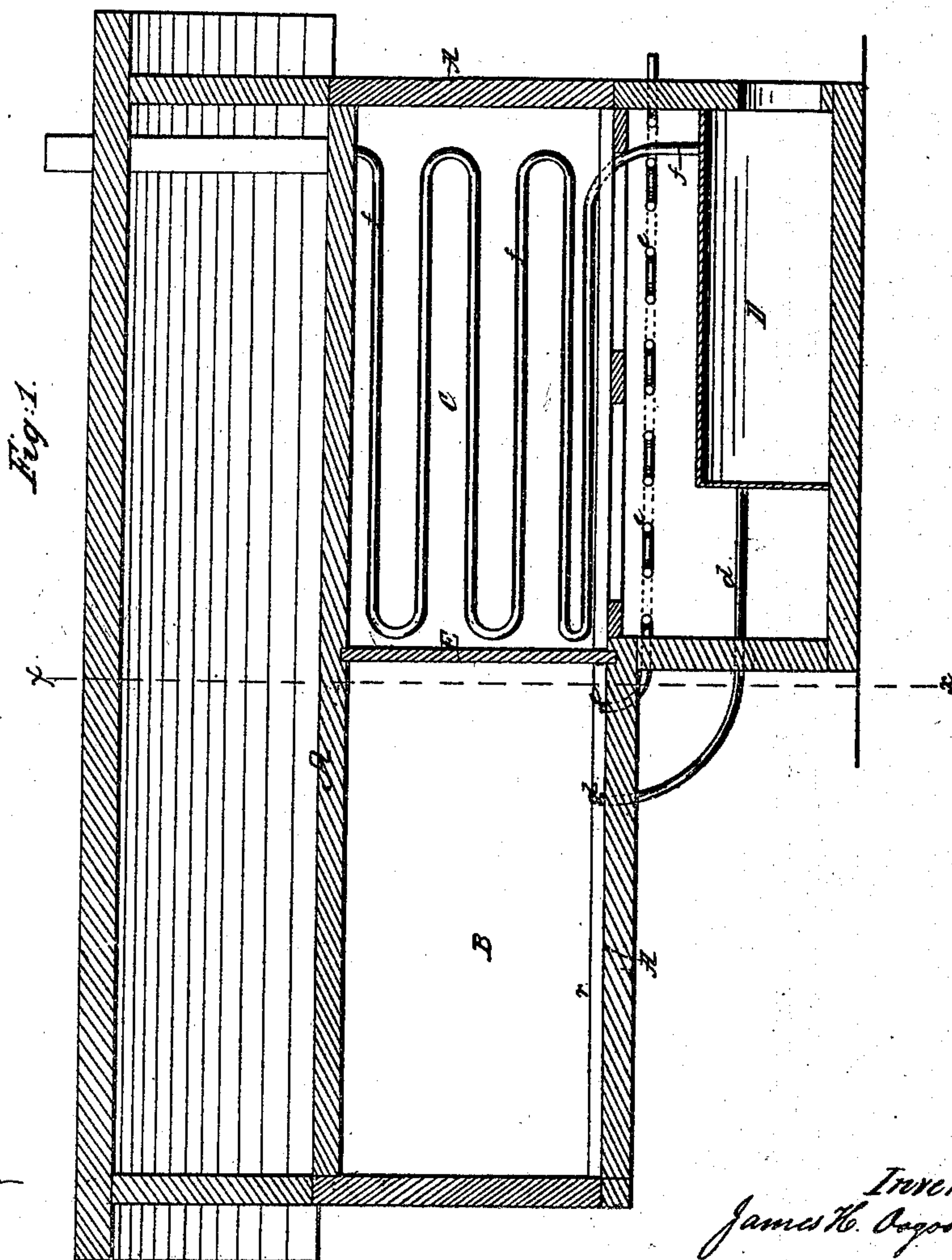
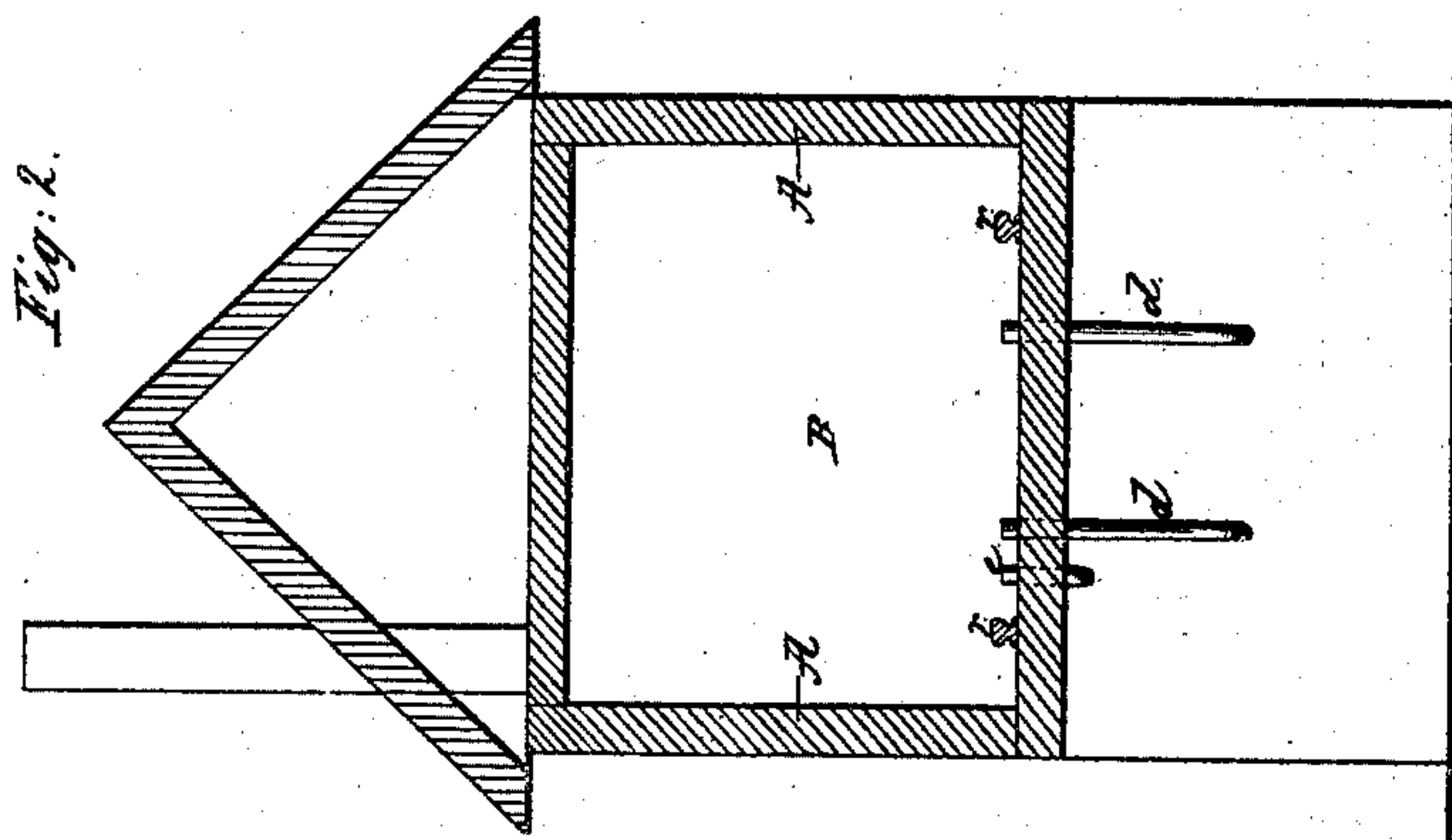


No. 60,043.

PATENTED NOV. 27, 1866.

J. H. OSGOOD, JR.
APPARATUS FOR DRYING LUMBER.



Witnesses
J. H. Adams
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APPARATUS FOR DRYING LUMBER.

JAMES H. OSGOOD, JR., OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND JAMES W. HANNA, OF WABASH, INDIANA.

Letters Patent No. 60,043, dated November 27, 1866.

SPECIFICATION.

Be it known that I, JAMES H. OSGOOD, jr., of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful improvement in the method of Drying and Seasoning Lumber, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a longitudinal vertical section; and

Figure 2, a transverse section on the line *z z*, of fig. 1.

Similar letters indicate like parts in the several figures.

The object of my invention is to dry and season lumber in the shortest possible time without injuring the same, and the invention consists in first subjecting the lumber to be seasoned to the action of steam at a proper temperature, and immediately afterwards to heated air. In the method heretofore practised in seasoning or drying lumber, it has been usual to subject it to a high degree of dry heat, by which means it is liable to become scorched or partially charred, rendering it unfit for many purposes of manufacture, owing to the peculiar quality of the sap contained in the same. By subjecting the lumber first to the action of steam, the sap becomes as it were decomposed or changed, so as to be readily driven out or thoroughly dried by the subsequent action of a moderate degree of heat, without injury to the wood.

Referring to the drawings, A represents the frame of a building of any required dimensions and formed in two compartments, B C, each having a door at its outer end, and made as nearly steam or air tight as possible. The walls or sides may be of double thickness, with or without any suitable filling, if requisite. The compartments are separated by a sliding door or partition to admit of a load of lumber being passed readily from one compartment to the other; two doors or slides may be used if found desirable to prevent too free a communication between the two compartments. On the floor of each compartment may be laid railroad rails, so that a car of lumber may be run over the same into and out of the compartments. D represents a steam boiler, communicating with which is a pipe, *d*, (one or more,) by which steam is conducted to the apartment, B, from whence it escapes through a pipe, *e*, leading from the compartment, B, and passing in a coiled or winding form under the compartment, C, so as to impart its heat to the same, and thence out in any proper manner from the building. The products of combustion pass from the furnace through a winding pipe, *f*, at the side of the compartment, C, so as to radiate as much heat as possible into the said compartment, B representing the steam chamber, and C the hot-air chamber. Additional heating apparatus may be added to the chamber, C, if found necessary. The operation is as follows: A car loaded with lumber is run into the chamber, B, when the doors are closed and steam is let into the chamber. After being subjected to the action of the steam as long as may be thought necessary, the steam is shut off and the door or slide, E, is opened, when the car is moved forward into chamber C, where the lumber is subjected to a dry heat as long as may be necessary. Another loaded car may at the same time be introduced into chamber B, so that the operations of steaming and drying may be continuous, and the lumber is thus rapidly dried and seasoned.

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

The combination of a steam-heating chamber with a hot-air chamber, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES H. OSGOOD, JR.

Witnesses:

J. H. ADAMS,

G. A. C. SMITH.