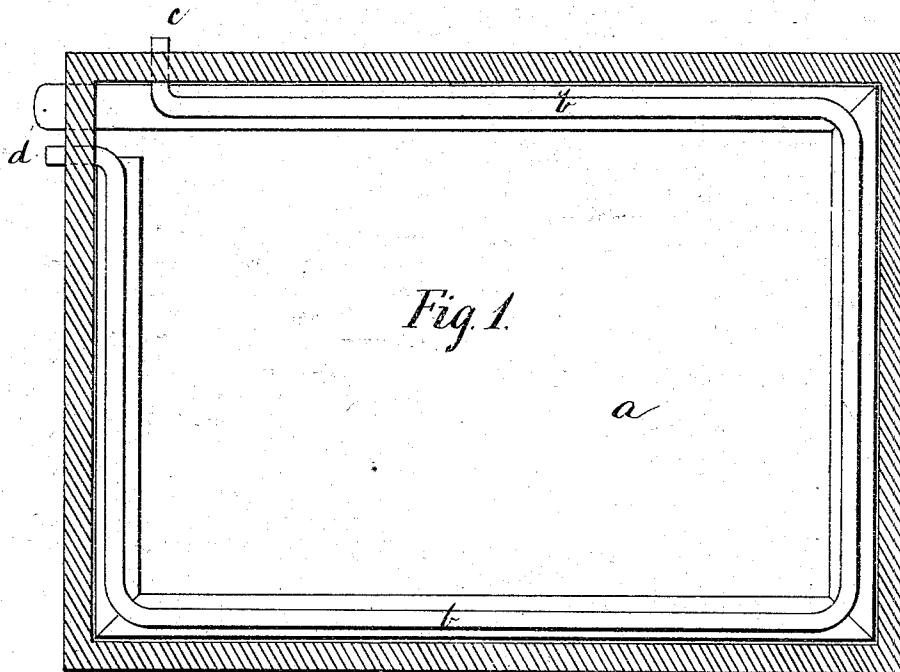
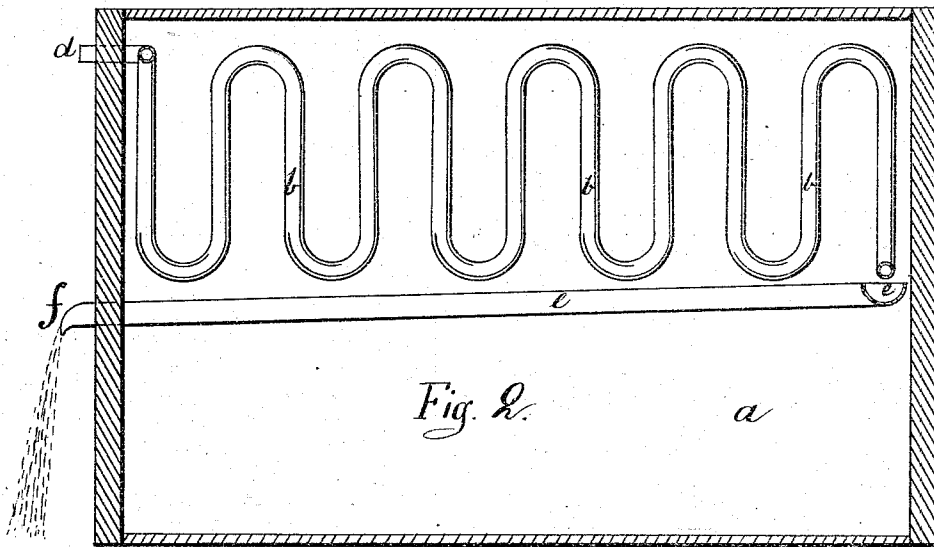


G. WOODS.
Drying Lumber, &c.,

No. 154,205.

Patented Aug. 18, 1874.



WITNESSES:

John R. Shepard.
Lewis H. Bell.

INVENTOR:

George Woods.
by Alban Andrew. atty.

UNITED STATES PATENT OFFICE.

GEORGE WOODS, OF CAMBRIDGEPORT, MASSACHUSETTS, ASSIGNOR TO
HIMSELF AND GEORGE P. CARTER.

IMPROVEMENT IN DRYING LUMBER, &c.

Specification forming part of Letters Patent No. **154,205**, dated August 18, 1874; application filed
April 23, 1874.

To all whom it may concern:

Be it known that I, GEORGE WOODS, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Drying Lumber, &c.; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to a new and useful process for drying lumber, &c., consisting in the employment of a pipe or receptacle containing circulating water of a low temperature, which pipe being located in the heated drying-chamber allows the moisture that evaporates from the lumber, &c., to condense on and collect upon the outside of said water-pipe, from which the condensed water is carried away in a conductor below the water-pipe, as will now be more fully shown and described.

The accompanying drawing will serve to more clearly show the manner in which my process is conducted.

On the drawing, Figure 1 represents a ground plan of my invention, and Fig. 2 represents a sectional elevation of the same.

Similar letters refer to similar parts wherever they occur on the different parts of the drawing.

a represents a drying room or chamber, heated in the usual manner. *b b* represent a pipe or receptacle, through which cold water is made to circulate by being forced in at *c* from a force-pump or suitable head. The cold water, after being circulated through the pipe or receptacle *b*, is forced out at *d*, from which it may be conducted to a steam-boiler as feed-water, or otherwise, as may be desirable. Beneath the surface-condensers *b b b* I suspend

in a suitable manner an inclined trough or conductor, *e*, into which the condensed water drips from the surface of the condensers *b b b*. The said inclined conductor *e* terminates at *f*, outside the drying-room, or in a similar manner, as shown in Fig. 2.

The lumber, or other articles that are to be dried, may be suspended in the chamber *a* in any of the ordinary ways.

The operation of my invention is as follows: After the lumber, or other material that is to be dried, is placed in the chamber *a*, I heat the atmosphere in the said chamber as usual, and, by keeping up a continual stream of cold water through the pipe or receptacle *b b*, in a manner described, the vapors that evaporate from the lumber, &c., are condensed as water on the surface of the condenser *b b*, from which it falls in liquid form into the conductor *e*, and is automatically conveyed from the drying-chamber, as above described.

In this manner I am able to dry lumber and other articles more rapid and at a less expense as compared with the ordinary methods of drying now in use.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

The process, as herein described, for drying lumber, &c., consisting in forcing water through a receptacle in the heated drying-chamber, on the surface of which receptacle the moisture from the lumber, &c., is condensed and conducted from the drying-room in a manner as herein shown and set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of April, 1874.

GEORGE WOODS.

Witnesses:

ALBAN ANDRÉN,
JOHN R. HEARD.

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