

(No Model.)

A. S. NICHOLS.

LUMBER DRIER.

No. 329,669.

Patented Nov. 3, 1885.

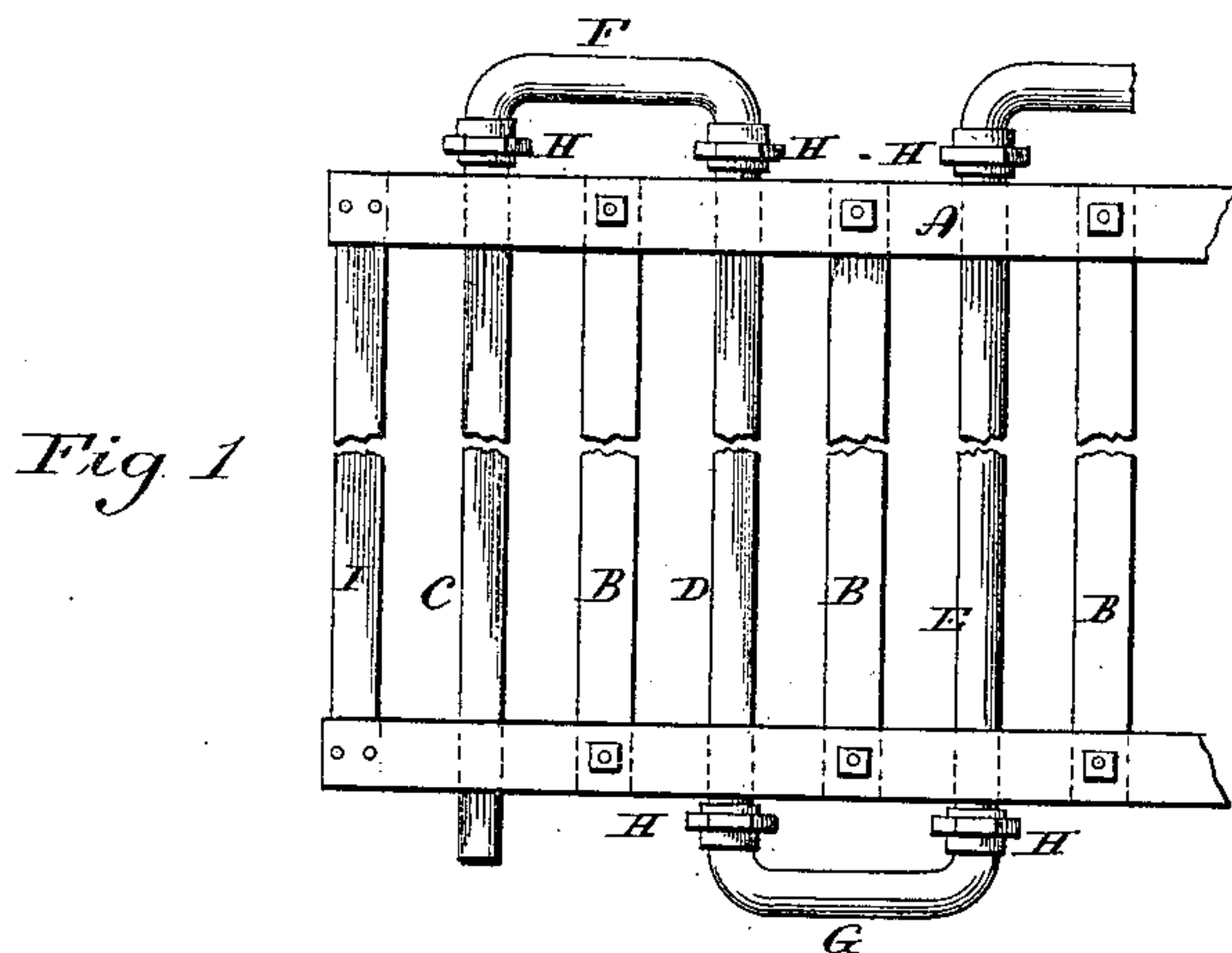
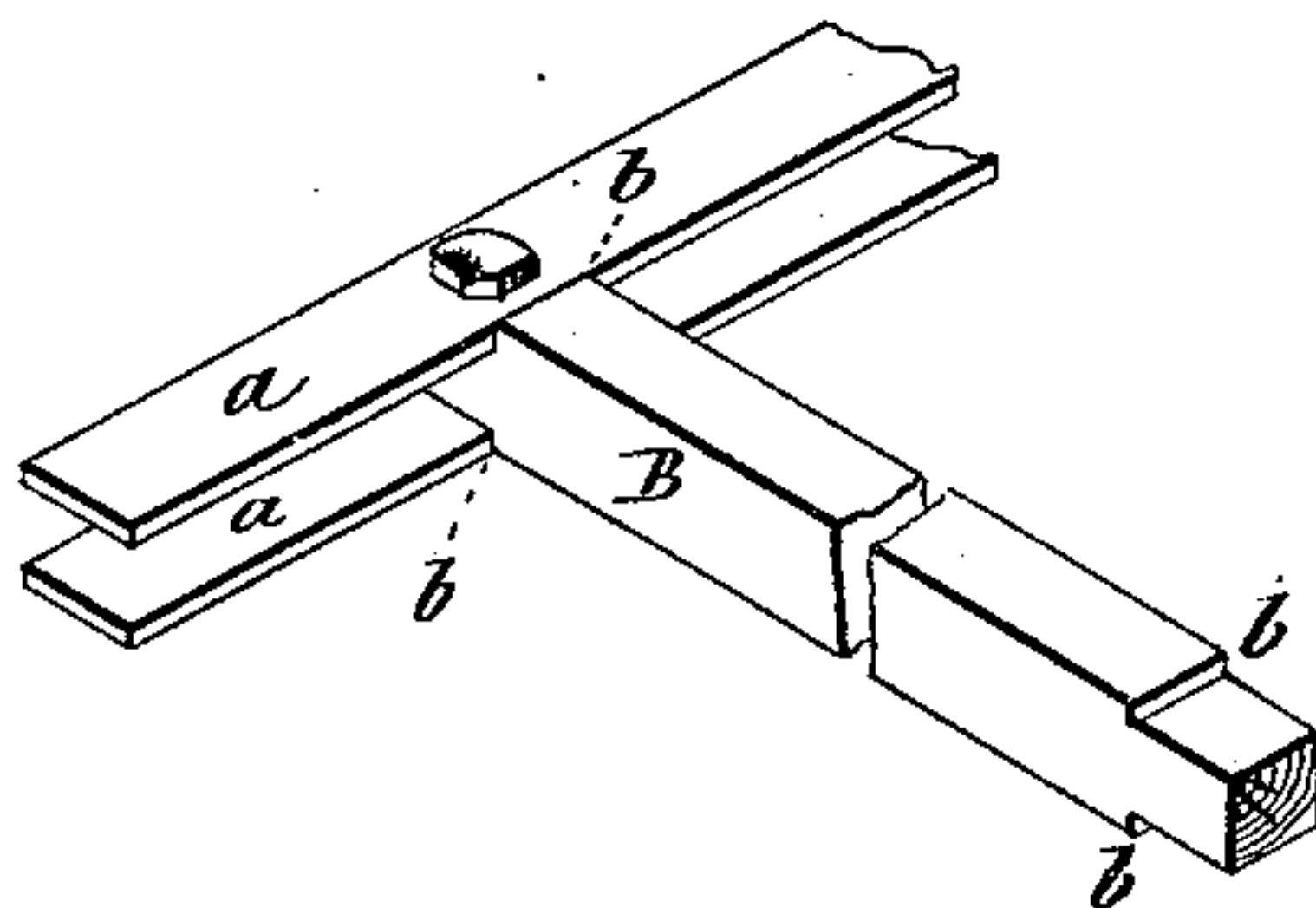


Fig 2



Witnesses:
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UNITED STATES PATENT OFFICE.

AARON S. NICHOLS, OF CHICAGO, ILLINOIS.

LUMBER-DRIER.

SPECIFICATION forming part of Letters Patent No. 329,669, dated November 3, 1885.

Application filed December 15, 1884. Serial No. 150,391. (No model.)

To all whom it may concern:

Be it known that I, AARON S. NICHOLS, of Chicago, in the county of Cook and State of Illinois, have invented a new Improvement in Lumber-Driers; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view of a portion of a platen, illustrating my improved arrangement of tubing; Fig. 2, a perspective view showing an improved construction of the platen-frame.

This invention relates to an improvement in apparatus for drying lumber, and particularly to that class of apparatus which consists of several platens, each composed of a tube coiled in a flat horizontal plane, layers of lumber and platens alternating, the tube arranged to receive steam or hot water to circulate therein and by its heat to dry the lumber. The platens in this class of apparatus usually consist of a horizontal frame, the tubing arranged within the frame and parallel with the sides, the tubing being in several runs connected by bends at the ends, so as to make a continuous coil through the platen. Such a platen is described in United States Patent No. 295,418, granted to me, dated March 18, 1884. In this construction of the platen the joints on the tubing are entirely within the frame, and so that should a leak occur it is difficult to ascertain its location, owing to the fact that when the steam or heating-fluid is in circulation the platens are in their closed condition upon the lumber, and access cannot be had to determine the position of the leak, and when the leak is discovered it is difficult to repair without removing the platen from the apparatus.

The object of my present invention is to overcome this difficulty; and it consists, principally, in extending the parallel tubes through the frame of the platen and making the connections outside the platen-frame, and as more fully hereinafter described.

A represents the sides of the frame, which are connected by transverse bars B B. C D E are parallel tubes extending transversely through the platen, the ends of the tubes being outside the sides of the frame. Upon the outside of the frame the first tube, C, is connected to the second tube, D, by a bend, F,

and the second tube, D, to the third tube, E, by a bend, G, upon the opposite side, and so on throughout the platen. The bends are best connected to the ends of the respective tubes by a union joint, H, a well-known connection. By this construction the joints are entirely outside the platens and always exposed when in operation, and should a leak occur at any point it can be readily repaired and without disturbing the apparatus. These tubes may run longitudinally or transversely. I prefer, however, to arrange them transversely, and so as to extend through the sides of the platen-frame. The frame for a platen of this construction is best made by forming the sides from two flat bars, one above the other, as seen in Fig. 2, they being connected across the ends by a suitable bar or connection, I. The transverse bars B may be made of wood of a length to extend between the two bars *a a* at their respective ends, and there reduced to form shoulders *b* to abut against the inner edge of the bars *a a*, and are secured between the bars by bolts or otherwise. The upper and lower surfaces of these bars should be rounded, so as to make but a narrow bearing for the lumber. By this construction I am enabled to make the transverse bars of wood, and thereby greatly reduce the weight of the platen. This part of my invention is applicable to platens having the tubes otherwise arranged than that herein first described—say as shown and described in my previous patent.

I claim—

1. The herein-described platen for drying lumber, consisting of a horizontal frame, combined with a series of tubes, the tubes extending at both ends through the frame, the tubes connected outside the frame, the first to the second at one end, the second to the third at the opposite end, and so on, thereby forming a continuous coil adapted to receive a circulating fluid, substantially as described.

2. A platen for drying lumber, consisting of a frame, the sides of which are composed of two parallel bars, *a a*, the said sides connected by transverse bars B, the ends of said transverse bars B extending between the said bars *a a* and there secured, substantially as described.

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Witnesses:

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