J. SPRINGER.

Manufacture of Doors, &c.

No. 199,871. Patented Jan. 29, 1878.

Fig. 1.

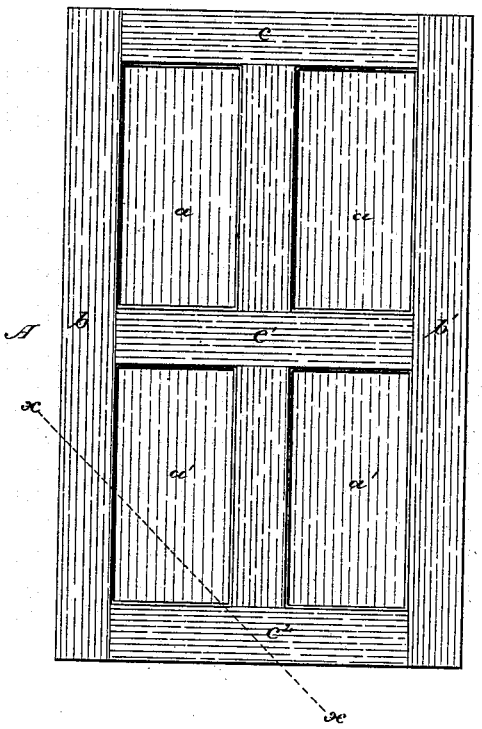
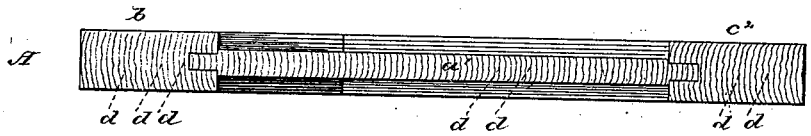


Fig. 2.



Attest:
E. J. Dyer.
L. M. Bailey

Inventor:
Jason Springer
by Geo. W. Dyer & Co.
Attys.

UNITED STATES PATENT OFFICE.

JASON SPRINGER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN THE MANUFACTURE OF DOORS, &c.

Specification forming part of Letters Patent No. **199,871**, dated January 29, 1878; application filed April 9, 1877.

To all whom it may concern:

Be it known that I, JASON SPRINGER, of San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in the Manufacture of Doors, &c.; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Heretofore it has been impossible to make from the California sugar-pine merchantable doors, for the reason that the wood, which grows to a great size and is of much coarser fiber than the white pine of Canada and the Atlantic slope, when sawed in the usual way, swells and curls very greatly in damp weather, and shrinks correspondingly in dry weather. The paint put upon it peels off in dry weather, in warm rooms, and under sun exposure, because it will not properly strike into the wood.

The object, therefore, I have in view is to manufacture from the California sugar-pine a good merchantable door, which will not shrink, swell, or curl under the changes of the temperature, and will retain the paint upon its surface without cracking or blistering; and my invention therein consists in a door, as a new article of manufacture, made of California sugar-pine, with the layers of the wood presented edgewise, or substantially at right angles to the sides of the door, the lumber being prepared in the manner described in Letters Patent No. 186,893, granted to me January 30, 1877.

In the drawings making part of this specification, Figure 1 is a plan view of my door, and Fig. 2 a cross-section of the same on the line *x x*.

A is the door, of which *a a'* are the panels; *b b'*, the stiles; and *c* c^1 c^2, the top, middle and bottom rails.

The pieces from which the door is manufactured are sawed at right angles to the layers *d* of the wood—that is, the layers are perpendicular to the surface of the door, as shown in Fig. 2, and run parallel, or nearly so, to the edges of the pieces, as shown in Fig. 1. This position of the layers is obtained by preparing the lumber in the manner described in the before-mentioned Letters Patent.

The log is first cut into convenient lengths, and is then split longitudinally into bolts by any suitable means, and divided into quarters, then subdivided longitudinally into eighths, or a greater number of pieces, according to size, each splitting being from the circumference to the center of the log, or at right angles, or nearly so, to the layers of the wood. These pieces are again divided longitudinally, this time following, substantially, the layers of the wood, which run across the said pieces, leaving the immediate center or heart, whose fiber is very coarse and loose, to be thrown away or used for other purposes.

The outside of the log, or sappy portion, should be split off from the pieces, which are then made into boards by sawing through the layers of the wood so that such layers are always perpendicular, or nearly so, to the sides of the boards.

The doors manufactured from the lumber thus prepared do not warp, curl, or crack under the changes of the atmosphere, and the paint placed upon them strikes into the wood between the layers, is held upon the surfaces, and will not blister or peel off.

Having thus fully described my invention, and explained some of its advantages, what I claim as new therein, and desire to secure by Letters Patent, is—

As a new article of manufacture, a door made of California sugar-pine, with the layers of the pieces presented edgewise or at right angles to the sides, and running parallel to the edges of the same, substantially as described.

This specification signed and witnessed this 22d day of January, 1877.

JASON SPRINGER.

Witnesses:

EDWARD E. OSBORN,

JAS. H. LAWRENCE.