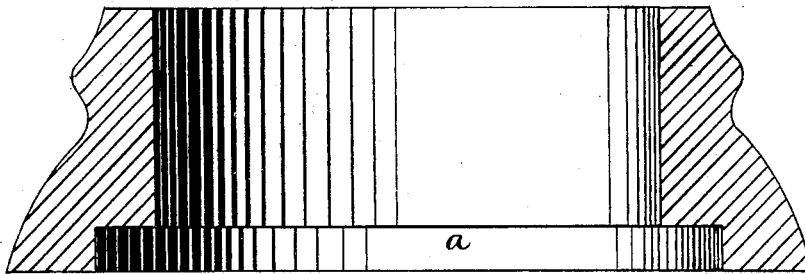


N. ALLEN.  
Manufacture of Clock-Cases.

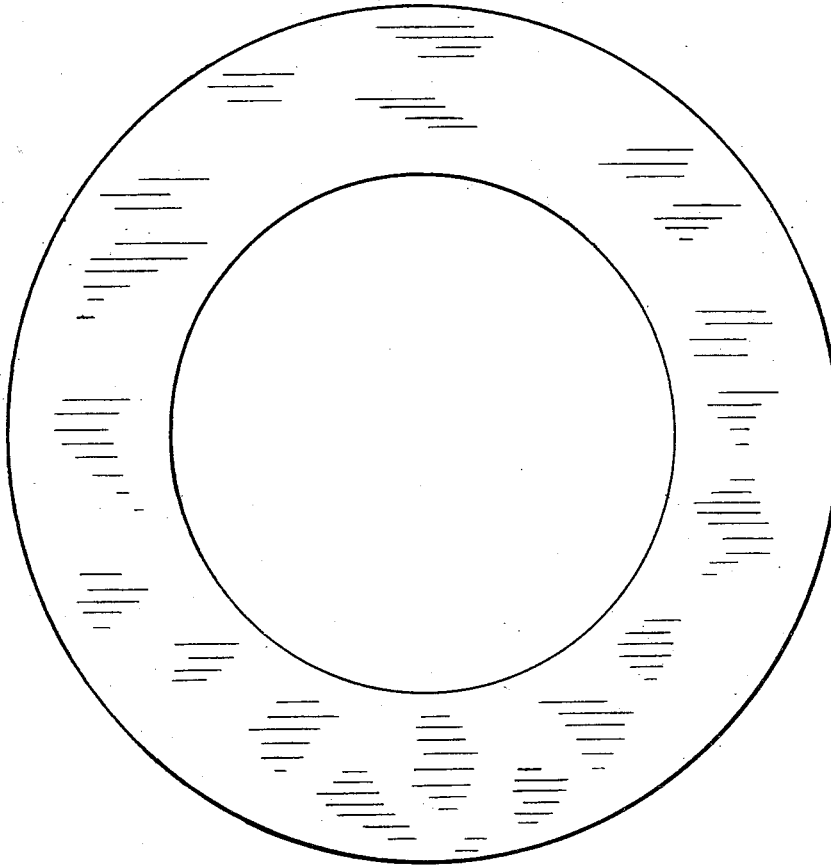
No. 200,596.

Patented Feb. 26, 1878.

*Fig. 1.*



*Fig. 2.*



Witnesses,  
W. R. Thomson.  
W. L. Hamason Jr.

Inventor,  
Norman Allen.  
By James Shepard Atty.

# UNITED STATES PATENT OFFICE.

NORMAN ALLEN, OF FORESTVILLE, ASSIGNOR OF ONE-HALF HIS RIGHT TO ELBRIDGE H. LANE, OF SAME PLACE, AND E. C. HAMLIN, OF PLAINVILLE, CONNECTICUT.

## IMPROVEMENT IN THE MANUFACTURE OF CLOCK-CASES.

Specification forming part of Letters Patent No. 200,596, dated February 26, 1878; application filed October 22, 1877.

### *To all whom it may concern:*

Be it known that I, NORMAN ALLEN, of Forestville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Clock-Cases, of which the following is a specification:

My invention relates to an improvement in the art of making wooden clock-cases; and consists of the said process of manufacture, as hereinafter described.

In the accompanying drawings, Figure 1 is a transverse section of the body of a clock-case which embodies my invention, and Fig. 2 shows a plan view of a blank from which the same is formed.

To make these cases, I take green logs of wood and saw them across the grain into blocks. The middle portion of the wood in each block is then removed for the entire length of the blank, and, if desired, the outer edge of the blocks may be roughed off, the removing of the middle portion making the blocks into annular blanks or rings, as shown in Fig. 2. It should be noticed that the inside diameter of the hole in each ring is greater than the width of the body on each side of the hole, which proportions are essential in order to produce the result desired, and hereinafter described. These rings are then thoroughly dried, preferably in a kiln, and when dry they are placed in a lathe, and turned into any desired form, and finished in any ordinary manner, the turning, however, always being of a form that will leave the grain of the wood running from front to rear of the case.

*a* designates a rabbet for receiving a wooden disk for a back in the ordinary manner.

Cases made by this process have but one piece of wood for all the sides of the body, and therefore no glued joints to become affected by time and weather, so as to come apart or make checks in the finish of the case. When of ring shape, in proportions before described, and with all of the wood cut out of the middle portion entirely through from front to rear, the expansion and contraction of the wood

will be uniform in all directions, (except from front to rear, which will not change at all,) so that the expansion and contraction merely enlarges or contracts the size of the case without warping or twisting it out of shape.

No checks or cracks will ever appear in the surface of the case, because of its being cut into ring form when green, with the grain running as described.

If these blocks were allowed to season before taking out the middle portion, there would not be any freedom for the outside to shrink in size, so that it would season-crack; but by removing the middle portion when green, as described, no season-cracks will occur. If, however, a small hole only should be made in the center of the block—that is, a hole of less (or about the same) diameter than the width of the ring on each side of the hole—then the middle portion or core would prevent the outside from contracting in size just the same as if said core were solid, so that the block, in shrinking, binds tighter and tighter upon the core until the grain of the wood is severed, leaving large cracks; but when formed into rings of the proportion described before drying, no such result will ever occur.

Very good cases may be made in the manner above described, except finishing the rings at once before drying, and drying after turning them, which would produce the same kind of a clock-case; but I prefer to season the rings before turning them.

I claim as my invention—

That improvement in the art of making clock-cases which consists in cutting off the blocks across the grain of green wood, removing the entire middle portion of the blanks sufficiently to form them into ring shape of the proportions described while they are yet green, and finally finishing the same by turning in such form as to leave the grain running from front to rear of the case, substantially as described, and for the purpose set forth.

NORMAN ALLEN.

Witnesses:

CHAS. O. MORSE,  
ROSSIE O. BEACH.