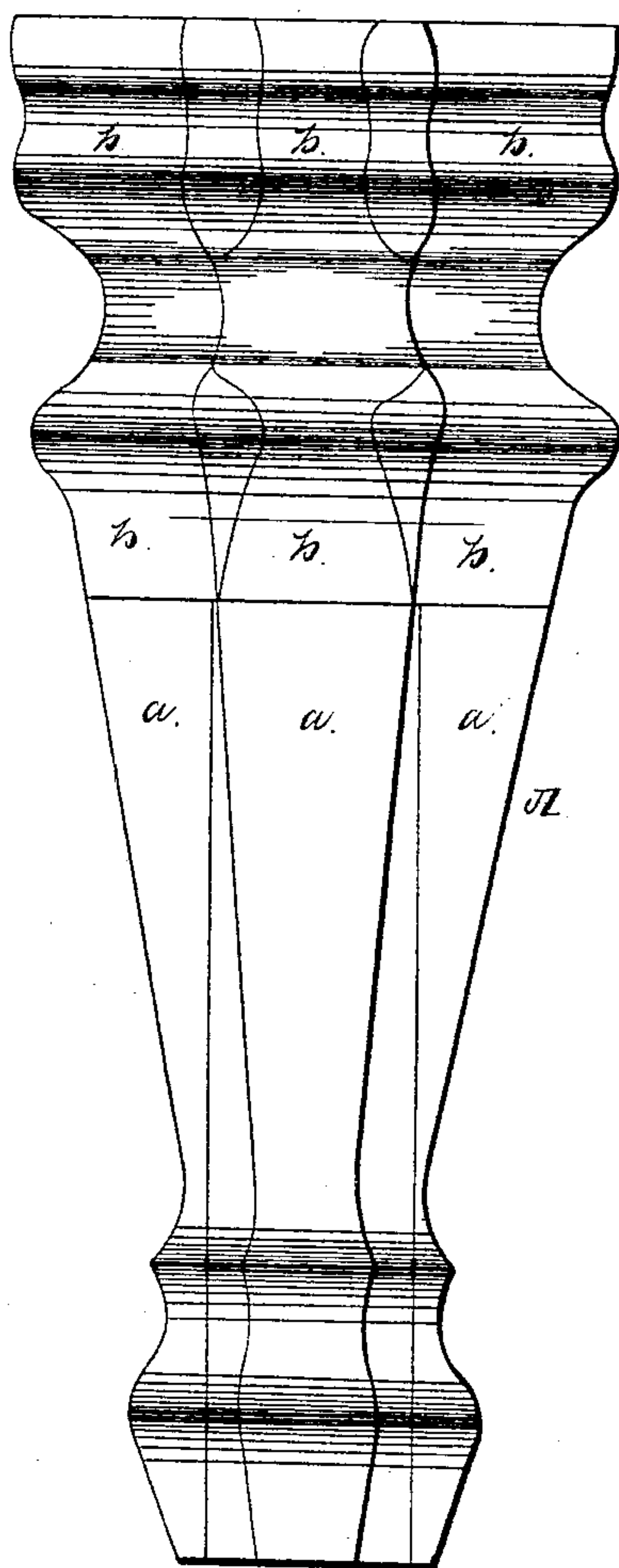


*Goodman & Hale,*

*Piano Leg.*

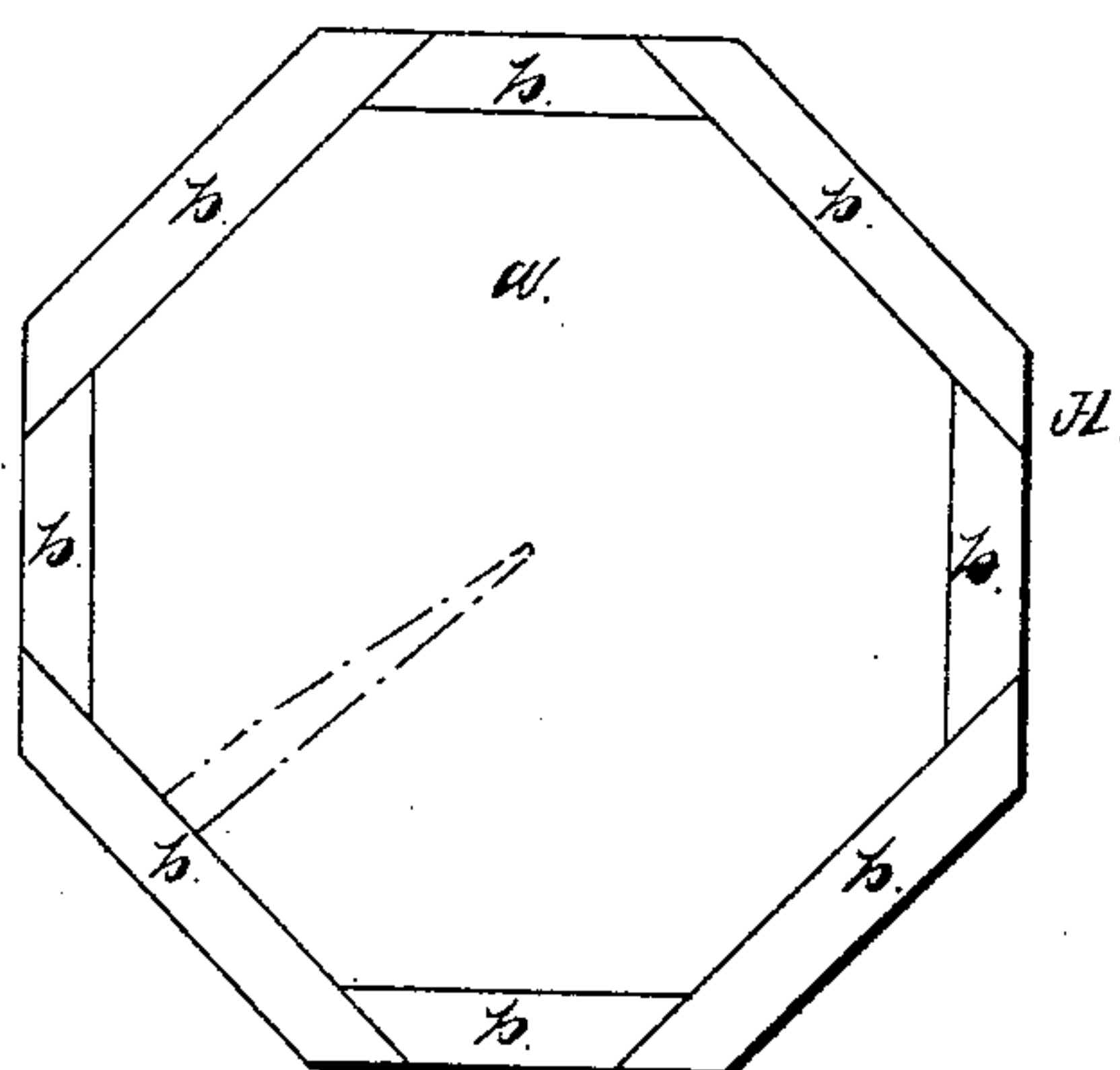
*N<sup>o</sup> 40,166.*

*Patented Oct. 6, 1863.*



*Fig. 1.*

*Fig. 2.*



*witnesses:*

*J. W. Coombs  
J. W. Rees*

*Inventor:*

*A. Goodman  
L. Hale  
By Munroe & Co.  
Attys*

# UNITED STATES PATENT OFFICE.

ALLEN GOODMAN AND LORENZO HALE, OF NORTH DANA, MASSACHUSETTS.

## IMPROVEMENT IN PIANO-FORTE LEGS.

Specification forming part of Letters Patent No. 40,166, dated October 6, 1863.

*To all whom it may concern:*

Be it known that we, ALLEN GOODMAN and LORENZO HALE, both of North Dana, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in the Construction of Legs for Piano-Fortes and Billiard-Tables; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of our invention; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

Piano-forte and billiard-table legs are constructed of a number of pieces of wood glued firmly together to form a bolt or stick of proper dimensions, and the stick then turned or planed in polygonal form, wholly or partially, according to the desired design. These bolts or sticks are quite liable to check, especially at their larger diameter, and the object of this invention is to obviate that difficulty.

To this end the invention consists in gluing to the stick or bolt at its periphery sticks or pieces of wood, the grain of which will extend around the stick or bolt at right angles with the axis thereof, so as to perform the function of hoops or bands, as hereinafter described.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a piano forte or billiard table leg, which is composed of a number of pieces of wood, *a*, glued together and then turned or planed in the proper or desired form.

The pieces *a* form the principal portion of the leg, and they have their grain running vertically or in a longitudinal direction with the leg, or nearly so, as shown in Fig. 1. At the greater diameter of the leg, however, there are pieces of wood, *b*, which have their grain running circumferentially with the leg, and consequently at right angles, or nearly so, with the grain of the pieces of wood *a*. These pieces of wood *b* are secured to the pieces *a*

by means of glue, and they may extend around the leg at any number of points desired. They serve as bands to prevent the checking of the pieces of wood *a*, for the latter, in consequence of the longitudinal position of their grain in the leg, have a tendency to check radially—that is to say, from the center of the leg outward to its periphery, as indicated by the dotted lines in Fig. 2. The pieces of wood *b*, however, cannot (owing to the position of their grain) check in that direction, and hence they perform the office of hoops or bands to prevent the checking of the pieces of wood *a*, as will be clearly understood by referring to Fig. 2.

The most desirable parts of the leg to attach the pieces of wood *b* are at the thickest parts of the leg, for the latter is most likely to check at those points. They may be placed, however, at other points, if desired.

The pieces of wood *b* may be of a greater or less thickness, according to the size or diameter of the leg, and in certain cases their strips of wood may be glued to the whole exterior of the leg with their grain extending circumferentially around the latter.

It will be understood that the leg, after being turned or planed in the proper form, is veneered, as usual.

We do not claim, broadly, forming the sticks or bolts for piano-forte or billiard-table legs of a number of pieces of wood glued together; but

We do claim as new and desire to secure by Letters Patent as an improved article of manufacture—

A piano forte or billiard-table leg having at any desired point or points on its periphery a number of pieces of wood with their grain running circumferentially around the leg or at right angles to the axis thereof, and at or about at right angles with the grain of the pieces of wood which constitute the body or principal part of the leg, as herein set forth.

ALLEN GOODMAN.  
LORENZO HALE.

Witnesses:

DANIEL STONE,  
WARREN HALE.