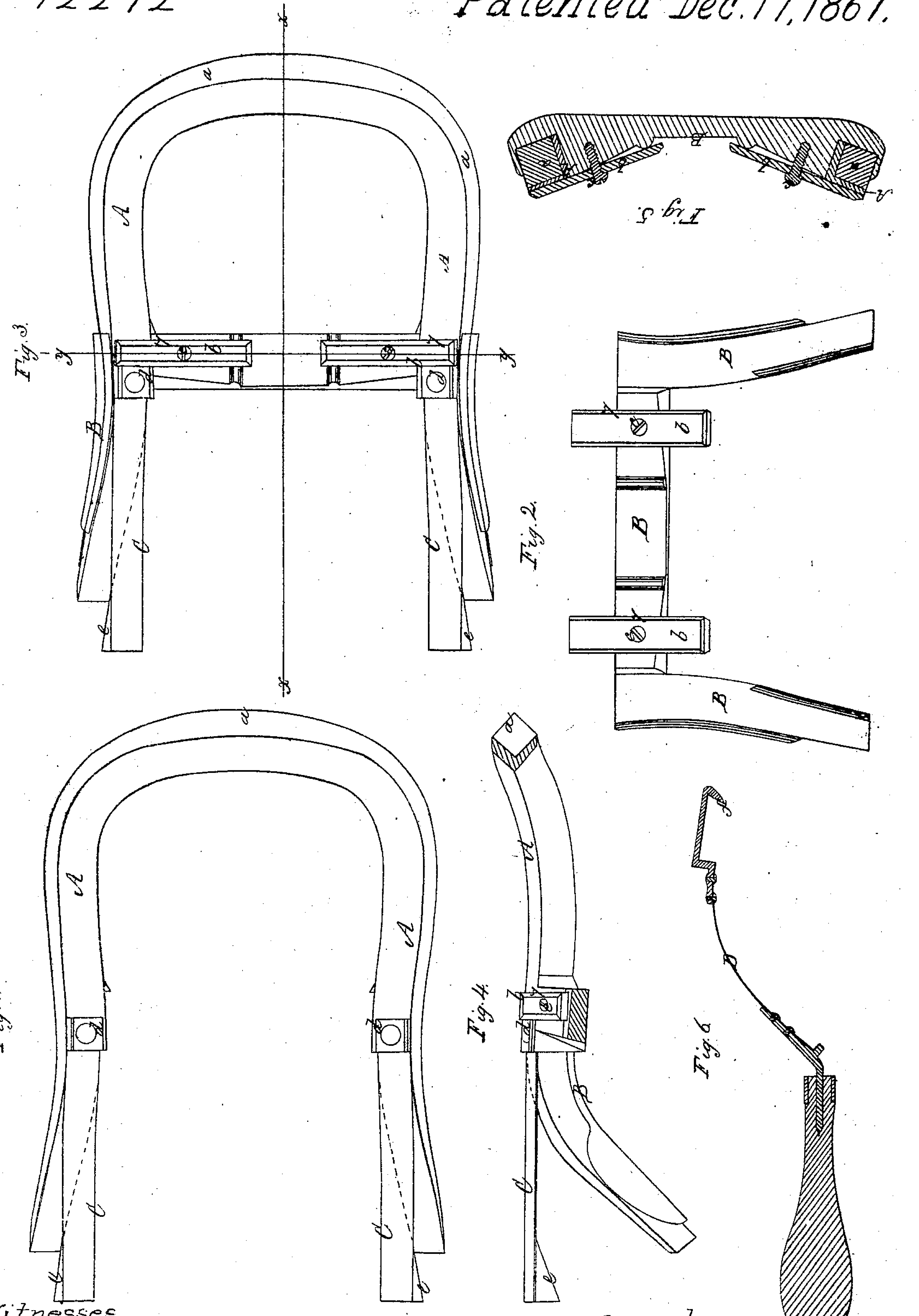
L. Heywood.

Bending Wood.

No. 72292 Patented Dec. 17, 1867.



Witnesses
N. W. Stearns
[illegible]

Inventor
Levi Heywood

United States Patent Office.

LEVI HEYWOOD, OF GARDNER, MASSACHUSETTS.

Letters Patent No. 72,292, *dated December* 17, 1867.

IMPROVEMENT IN MACHINES FOR BENDING WOOD.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, LEVI HEYWOOD, of Gardner, in the county of Worcester, and State of Massachusetts, have invented certain Improvements in Apparatus for Bending and Shaping Timber, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a piece of timber bent around and shaped by the employment of a mould or form of common construction.

Figure 2 is my improved mould or apparatus for shaping timber, to be used in connection with the said mould or form.

Figure 3 represents the two moulds with a piece of timber clamped therein.

Figure 4 is a section on the line *x x* of fig. 3.

Figure 5 is a section on the line *y y* of fig. 3.

Figure 6, detail to be referred to.

My invention relates particularly to certain improvements in apparatus for bending and shaping timber for the backs of chairs, &c., and consists in an auxiliary mould, or apparatus to be used in connection with the mould or form commonly used for this purpose, the central portion of the timber being first bent in the ordinary mould, after which the auxiliary mould is securely clamped thereto, and the lower or end portions of the timber are bent as required, the two operations being performed with great facility and in a reliable manner.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a mould, of the form seen in figs. 1 and 4, in which a piece, *a*, of wood, for the back of a chair, &c., after being steamed, is bent, by means of a chain or otherwise, the mould being fastened immovably to a bench or table, and the ends of the piece *a* being brought down, so as to snugly fit it, after which it is clamped thereto, and the mould A, being then released from the table and turned over, the lower portions or ends of the timber are fitted to an auxiliary mould, B, of the form seen in figs. 2 and 5, the mould B being first fastened securely to the bench or table. The lower portions of the timber are now kept in place between the moulds A B, by turning buttons *b*, secured by screws *c* to the mould B, and clamping them against a projection or abutment, *d*, formed at the ends of the mould B. C are flexible metal straps, the upper ends of which are riveted to the abutments *d*, while their lower ends are made in the form of a shoe, *e*, as seen in fig. 4. A spring-lever, D, of the form seen in fig. 6, is employed to bring the ends of the timber down within the lower curved portion of the mould B into a position seen in fig. 4, a shoulder or projection, *f*, on the extremity of the lever, fitting over and bearing against the side 7 of each button *b*. Each of the elastic metal straps C is brought down by the lever D simultaneously with the ends of the timber, which is prevented from springing up by means of clamps (not shown.)

By the employment of apparatus similar to that above described, any timber or piece of wood for a variety of purposes may be bent and twisted, without fracturing its fibres, in such manner as to permanently retain any desired shape.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

The moulds A and B, in combination with the lever D, or its equivalent, all constructed to operate in the manner substantially as and for the purpose set forth.

LEVI HEYWOOD.

Witnesses:

N. W. STEARNS,

P. E. TESCHEMACHER.