C. E. HOLTZ.

Harp.

No. 224,536. Patented Feb. 17, 1880.

FIG. 1.

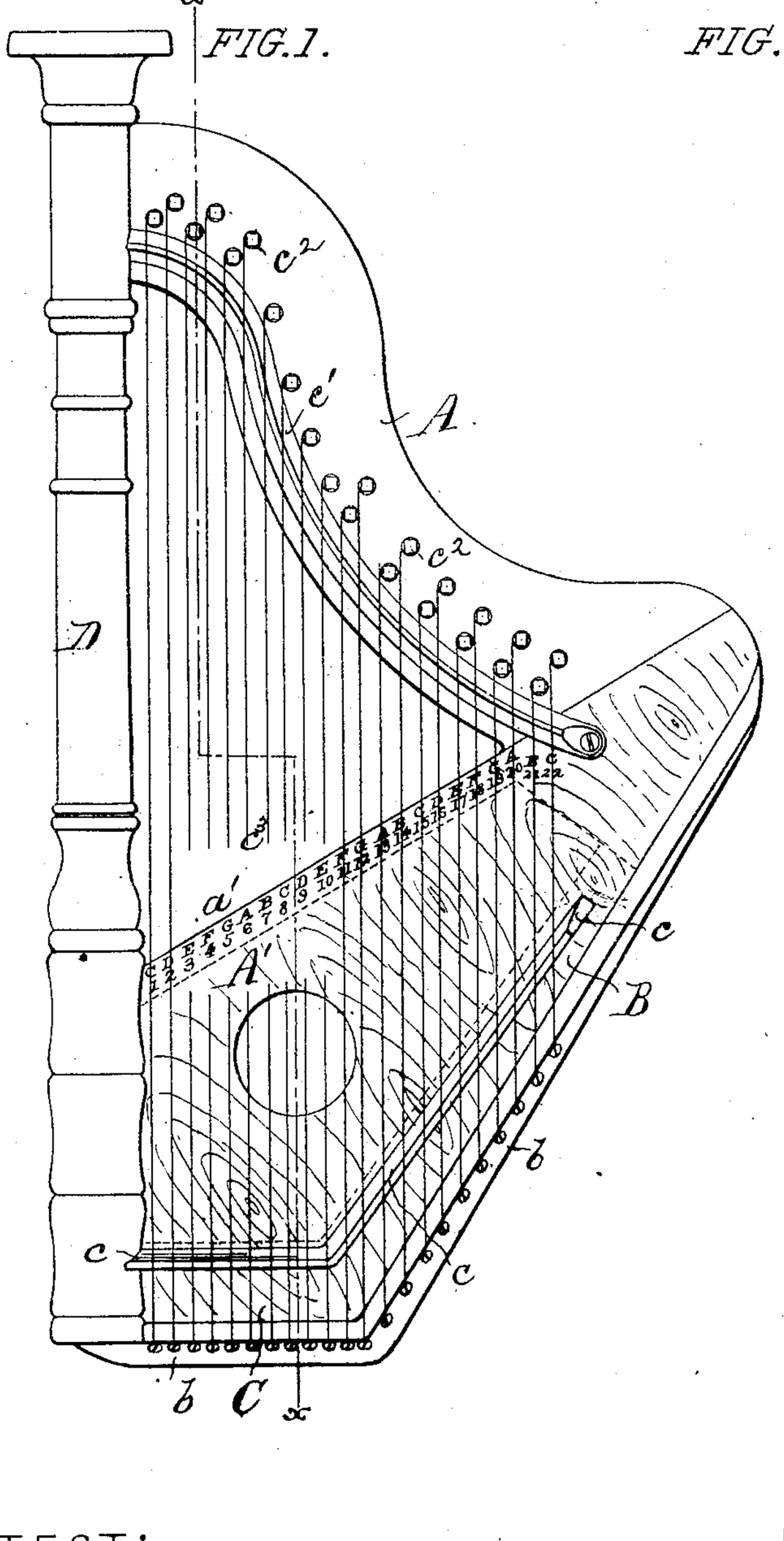
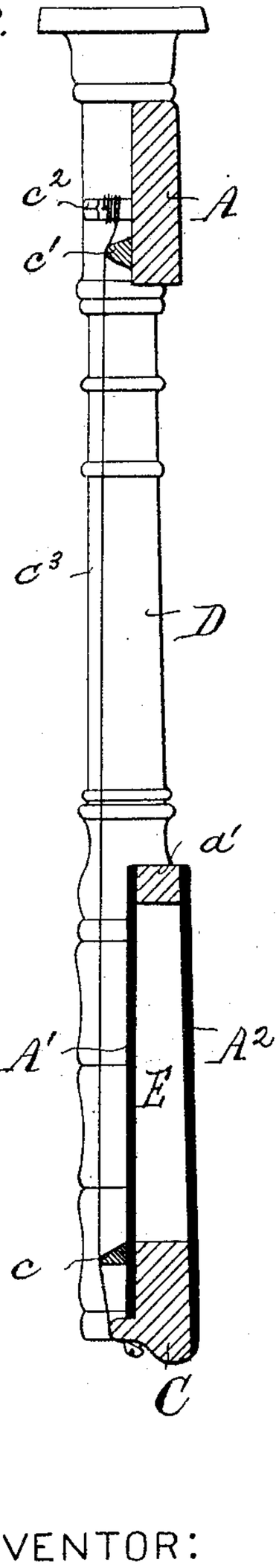


FIG. 2.



ATTEST:

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UNITED STATES PATENT OFFICE.

CARL E. HOLTZ, OF ST. LOUIS, MISSOURI.

HARP.

SPECIFICATION forming part of Letters Patent No. 224,536, dated February 17, 1880.

Application filed June 25, 1879.

To all whom it may concern:

Be it known that I, CARL E. HOLTZ, of St. Louis, Missouri, have invented an Improved Harp, of which the following is a specification.

My invention as here presented forms a most desirable improvement, being readily and cheaply manufactured, and upon which the playing can be accomplished with enhanced effects.

I will first fully describe my invention, and hereinafter point out the novel features thereof in the claims.

Of the drawings, Figure 1 represents a front elevation of my improved harp, Fig. 2 being a longitudinal sectional elevation on line *x x*, Fig. 1.

The frame-work consists of the solid pieces A B C, united to the column D. The shape of each of the parts is as shown in the figures, and how far each extend into the body is indicated by the dotted lines in Fig. 1.

A′ is the sounding-board, which is united flush to the top of the frame-work. Likewise A^2, the bottom, is a board united flush over the back of the frame-work.

a′ is the face to close the top of the sounding-board. Said face extends from the column on an incline to join near the lower corner of A. The bottom face extends from the column first in a horizontal direction, (see C,) thence farther, as B, inclines to join with the lower corner of A. E is the resonance-chamber. *b b* are moldings.

The position or arrangement of the sounding-board and back-board is in accordance with the natural grain of the wood—viz., in a diagonal direction, as indicated in Fig. 1—so as to obtain strength, durability, and greater reverberation. As shown, the said sounding-board is vertical when the instrument is upright, and horizontal when the instrument is laid upon the table. Hence the player can use the instrument as a harp or like a zithern.

c represents a bridge, which I unite to the face of the sounding-board so as to be over the solid parts of B C. The arrangement of this bridge is first horizontal, then also in an inclined direction, in accordance with the outline of the instrument. The addition of the bridge *c*, over which the strings stretch, enhances the vibration and gives greater strength and purity of tone.

c′ is the ordinary metallic rest employed, over which the strings, as usual, pass. c^2 are keys inserted in A. c^3 are the metal strings coiled about the keys, stretched over both bridges and united to the fastening-edge at the bottom.

What I claim is—

1. In combination with a musical instrument of the character herein shown and described, having its sounding-board, over which the strings are passed, positioned vertically with relation to the body of the instrument, as shown, the bridge *c*, as and for the purposes set forth.

2. The combination of the parts A B D, the back-board A^2, sounding-board A′, having bridge *c*, the keys, strings, and rests, all said parts being constructed and arranged to form the improved musical instrument shown and described.

In testimony of said invention I have hereunto set my hand.

CARL E. HOLTZ.

Witnesses:

WILLIAM W. HERTHEL,

JOHN W. HERTHEL.