

No. 646,539.

Patented Apr. 3, 1900.

S. A. HUNT.
MUSICAL SOUNDING BOARD.

(Application filed Oct. 16, 1899.)

(No Model.)

Fig. 1

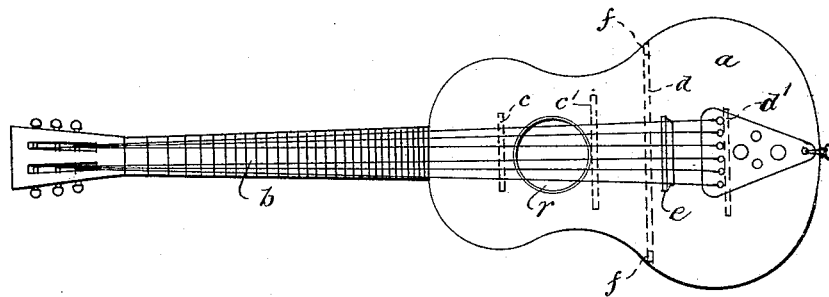


Fig. 2

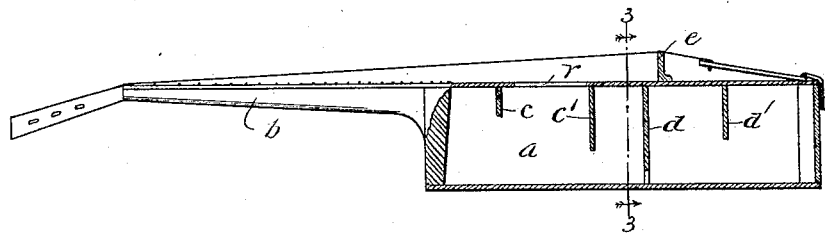
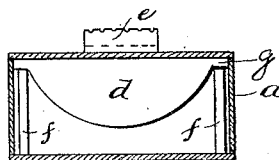


Fig. 3



Witnesses:

G. S. Noble
H. E. Evans.

Inventor,

Silas A. Hunt.
by C. A. Bishop

Att'y

UNITED STATES PATENT OFFICE.

SILAS ARTHUR HUNT, OF CHICAGO, ILLINOIS.

MUSICAL SOUNDING-BOARD.

SPECIFICATION forming part of Letters Patent No. 646,539, dated April 3, 1900.

Application filed October 16, 1899. Serial No. 733,794. (No model.)

To all whom it may concern:

Be it known that I, SILAS ARTHUR HUNT, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sounding-Boards for Musical Instruments, of which the following is a specification.

My invention is related to musical instruments having sounding-boards and strings; and it consists in an arrangement of sub-sounding-boards fixed to either side of a sounding-board at a right angle to its plane; and the objects of my improvement are, first, to increase the volume of sound without affecting its quality; second, to soften the tone, so as to produce a singing effect; third, to enable the player to change the tone of his guitar or similar stringed instrument at his will to suit the occasion. I attain these objects by a mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a guitar, showing the positions of the sounding-boards by broken lines. Fig. 2 is a longitudinal sectional view showing the method of fixing the boards as applied to a guitar. Fig. 3 is a transverse vertical section taken on line 3 3, showing the general form of the sounding-boards and the posts *f*, supporting the extremities of the board, not in contact with the sides of the guitar.

Similar letters refer to similar parts throughout the several views.

In referring to the drawings, Fig. 1 shows the top of a guitar with the strings in place. *e* is a movable bridge.

a is the sounding-board.

r is the rosette.

b is the handle.

The subsounding-boards *c*, *c'*, *d*, and *d'* are made from wood of the same quality as the sounding-board of the instrument to which they are to be applied and the same thickness on the straight edge, being slightly tapered toward the lower or curved edge. The lower edge is curved, as shown in Fig. 3 at *d*, and varying in width, *d* being the widest, and provided with a lip *g* at each end. The boards are glued transversely to the under side of the sounding-board, the wider one, *d*, located near the point where the bridge rests.

The next in width, *c'*, is located near the rosette-aperture. The next, *d'*, is located halfway between the head of the guitar and the wider board *d*. The board *c* is fixed halfway between the board *c'* and the heel of the guitar. The posts *f* are set with top end against the lips of the board *d*. The lower ends of the posts rest against the back of the guitar, supporting the board. The posts *f*, should not be set in contact with the sides of the guitar. The board *d* should extend down to within three-fourths of an inch of the back.

The subsounding-boards take the place of the ordinary ribs glued to the under side of the sounding-board. Hence the ribs may be entirely dispensed with where the subboards are used in the construction of a guitar or similar instrument.

In playing an instrument fitted with my subsounding-boards the sound-waves set in motion by the sounding-board are intensified by the rigidity imparted to it by the subsounding-boards, they being set at a right angle to its plane. The boards vibrating in a different angle set in motion a new series of sound-waves, which meet and cross the original sound-waves and blend with them, producing a prolonged soft tone. The tone may be changed by moving the bridge to and fro until the desired tone appears.

In describing my improvement I have used a guitar, because its application could be shown in that instrument best. However, I do not wish to confine myself to a guitar, as the improvement may be applied to a piano or other stringed instrument by adapting the subsounding-boards to the form of the instrument being constructed.

What I claim, and wish to secure by Letters Patent, is—

In a musical instrument having a sounding-board, the combination of the subsounding-boards fixed at a right angle to the plane of a musical sounding-board, with the supporting-posts *f* adapted to rest against the back of a musical instrument substantially as described.

SILAS ARTHUR HUNT.

Witnesses:

JULIA H. BISHOP,

H. E. EVANS.