

1,183,369.

Patented May 16, 1916.

2 SHEETS—SHEET 1.

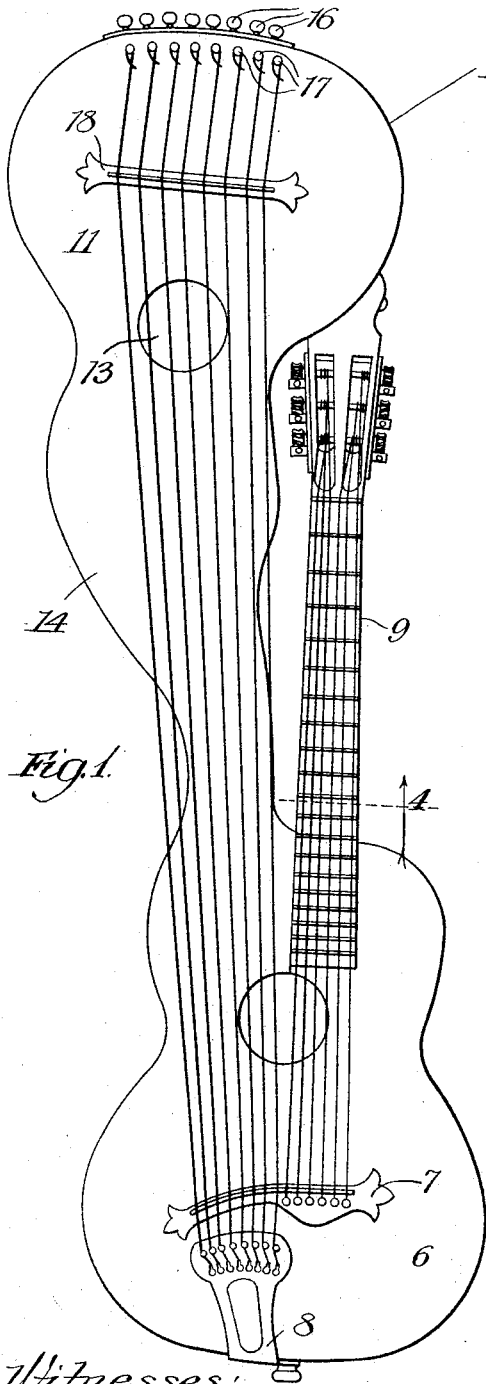


Fig. 1.

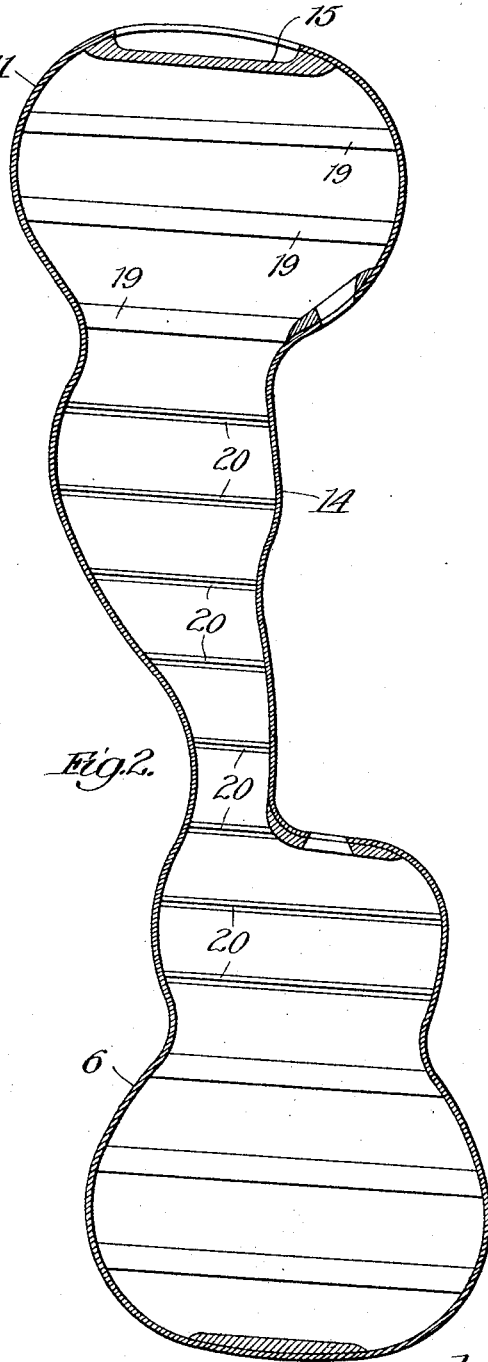


Fig. 2.

Witnesses:  
*W. C. Gaylord,*  
*Irwin L. Bowman.*

Inventor:  
*Paul Gardie,*  
*By J. W. York, Sec. C. W. Miller, Atty.*

P. GARDIE.

GUITAR.

APPLICATION FILED MAY 24, 1915.

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2 SHEETS—SHEET 2.

1,183,369.

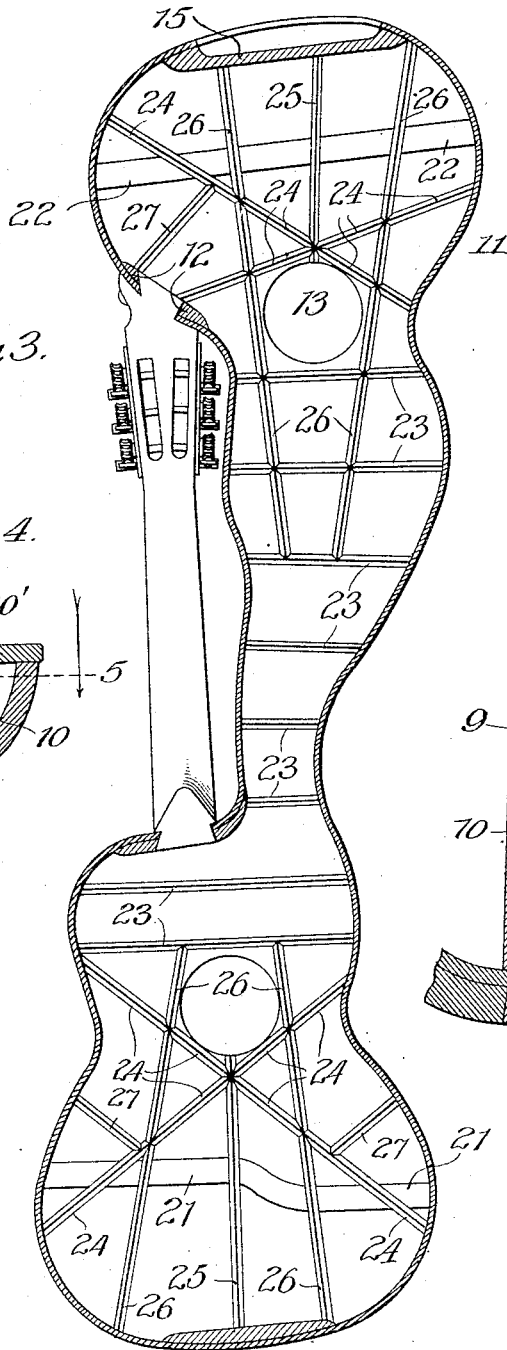


Fig. 3.

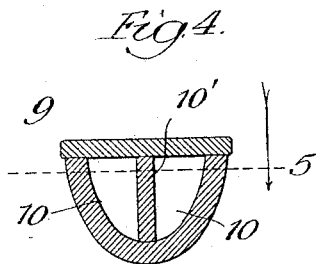


Fig. 4.

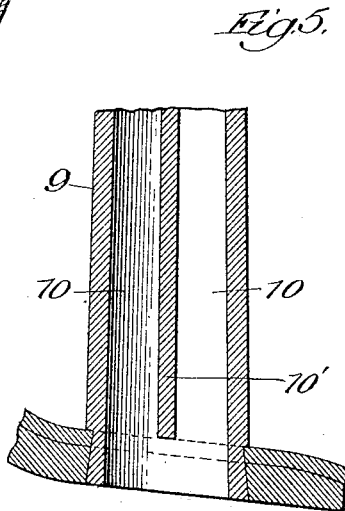


Fig. 5.

Witnesses:

*W. H. Day*  
*Wm. C. Bowman*

Inventor:

*Paul Gardie*  
*By J. H. Smith, Atty.*

# UNITED STATES PATENT OFFICE.

PAUL GARDIE, OF CHICAGO, ILLINOIS.

## GUITAR.

1,183,369.

Specification of Letters Patent.

Patented May 16, 1916.

Application filed May 24, 1915. Serial No. 30,157.

*To all whom it may concern:*

Be it known that I, PAUL GARDIE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Guitars, of which the following is a specification.

My invention relates to certain new and useful improvements in guitars and is fully described and explained in the specification and shown in the accompanying drawings, in which:

Figure 1 is a plan view of my improved guitar; Fig. 2 is a section parallel to the sounding-board showing the back of the instrument from the interior; Fig. 3 is a similar section looking in the opposite direction, showing the interior of the front or sounding-board; Fig. 4 is a section on the line 4 of Fig. 1, and Fig. 5 is a section on the line 5 of Fig. 4.

Referring to the drawings, it will be seen that my guitar is of the contrabass type. At one end is a main body 6 whose contour is generally similar to that employed in ordinary guitar construction. The sounding-board on its upper surface carries a bridge 7 to which are attached the treble strings, the bass strings running over the bridge and being attached to a tail-piece 8.

9 is the neck provided with the usual frets and at its head with the usual keys to which the treble strings are attached and by which their tension can be adjusted for tuning purposes. The position and general arrangement of the neck does not differ essentially from that commonly employed. However, with a view to securing additional sounding space and an improved tone, the neck is made hollow as shown in Fig. 4, the rear or lower piece of the neck being hollowed out to form a space 10, which is inclosed by the finger-board. The finger-board is supported by a longitudinal brace, or rib, 10', and both ends of the treble strings thus rest on thin wooden walls inclosing the sounding-chamber.

Located above the end of the finger-board, is an auxiliary body 11 to one side of which the head is fastened, a block 12 within the auxiliary body being engaged by a dove-tailed part on the head of the neck. The auxiliary body 11 is of a form generally similar to that of the body and the same sounding-board is common to both bodies, an opening 13 being provided in the aux-

iliary body. The two bodies are connected by a long sounding space of irregular form, indicated in the drawings by 14, the two bodies and connecting space thus inclosing a very large chamber. At the upper end of the auxiliary body is a block 15 which carries keys 16 operating upon pins 17 by any suitable means as by the familiar worm and gear connection. To the pins 17 are connected the upper ends of the bass strings, these strings passing over a bridge 18 on the auxiliary body. The bass strings are therefore supported at both ends on the sounding-board.

It will be manifest that the strain upon the sounding-board of this type of guitar is very great, and the whole instrument is under severe strains, yet, owing to the large size of the instrument, a very light mode of construction must be devised in order to bring the weight of the instrument within limits that can be conveniently handled. As a matter of fact an instrument which has been built and used, and which is exactly as shown in the drawings, weighs between six and seven pounds. To attain the desired lightness and strength, I have devised the bracing system shown. The back-board is braced with transverse braces 19 and 20 parallel to each other. The braces 19 are flat and of about the proportional width illustrated. The braces 20 are much narrower and are in the form of triangular ribs, such as are commonly employed in this art. It is the front or sounding-board of the instrument which is subjected to the greatest strains and is provided with the strongest bracing, this bracing being illustrated in Fig. 3. Broad braces 21 and 22 run underneath the bridges in the body 6 and auxiliary body 11, respectively. The intermediate part, practically from one sounding hole to the other, is braced by transverse braces 23. Each body also has two diagonal braces crossing each other adjacent to the sounding holes in the two bodies, and on the sides of said holes which are farthest removed from each other. Each body also has a central longitudinal brace 25 running from its end over the intersection of the braces 24 and to the edge of the sounding hole. Each body also has two lateral longitudinal braces 26, which start at the ends of the instrument and incline toward each other as they approach the center of the instrument, these braces passing close

by the two sides of the respective sounding holes and the braces 26 in the auxiliary body being longer, so as to continue well down into the intermediate part 14 of the instrument. There are, in addition, short angular braces 27 running from the sides of the instrument to the diagonal braces 24. I find that this system of bracing produces an exceedingly light and strong construction.

In use the present guitar is a very great improvement upon any of the similar instruments heretofore produced, particularly in the matter of volume of sound. The guitar heretofore has been greatly limited in its application because of the small volume of sound which it produced and it has been confined to use in orchestras or in relatively small rooms where a very large volume of sound was not required. The present instrument, without sacrificing the sweetness of the guitar tone in any way, attains a very large volume of sound, not only from the bass strings but from the treble strings. The volume of tone from the treble strings is enhanced, as compared with the ordinary guitar, first, by the hollow in the neck, and, second, by the presence of the large auxiliary body which is rigidly attached to the upper end of the treble neck and forms with the body portion a single very large sounding space. It is perfectly manifest, of course, that the bass strings must produce a very unusual volume of sound because of the fact that they rest at both ends on the sounding board, which covers and forms one side of the very large sounding space. It is a fact that the present guitar produces a volume of sound which is believed to be fully equal to that produced by a harp, thus fitting this guitar for a wide field of usefulness for which ordinary guitars are not suited.

I realize that considerable variation is possible in the details of the construction herein shown, and I do not intend to limit myself thereto, except as pointed out in the following claims, in which it is my intention to claim all the novelty inherent in the device as broadly as is permitted by the state of the art.

I claim as new and desire to secure by Letters Patent:—

1. A guitar having a hollow body, a neck connected therewith, a second body attached to the opposite end of the neck, and strings extending from one body to the other.

2. A guitar having a hollow body, a neck

connected therewith and an auxiliary body attached to the head of the neck, said two bodies being connected by an intermediate portion and the sounding-board of both bodies being integral.

3. A guitar having two hollow bodies at opposite ends and an intermediate resonant space connecting the bodies, the sounding-boards of both bodies being integral, bass strings stretched over bridges on the two bodies, a neck to one side of the intermediate space which connects the bodies and connected at its opposite ends to the bodies respectively, and treble strings running from a bridge on one body to the head of the neck.

4. In a guitar a hollow body, a bridge thereon, a hollow neck communicating with the space within the body, treble strings running from the bridge to the end of the neck, an auxiliary body connected to the opposite end of the neck from the body, an intermediate resonant-chamber connecting the two bodies, both bodies and the intermediate space being provided with a common sounding-board and bass strings supported at both their ends on the bodies, respectively.

5. A guitar provided with two hollow bodies and an intermediate resonant space, a single sounding-board common to both bodies and the intermediate space, a neck to one side of the intermediate space and a bracing system for the sounding-board comprising transverse, diagonally disposed braces, in the intermediate portion, and longitudinal braces in the bodies.

6. A guitar provided with two hollow bodies and an intermediate resonant space, a single sounding-board common to both bodies and the intermediate space, a neck to one side of the intermediate space, a bracing system on the sounding-board comprising a pair of diagonally disposed generally transverse braces in each body, a pair of converging generally longitudinal braces in each body, a single central longitudinal brace in each body and transverse braces in the intermediate portion.

In testimony whereof I have hereunto set my hand this 17th day of May, 1915.

his  
PAUL X GARDIE.  
mark

In presence of subscribing witnesses:

E. D. STEELE,

A. C. FISCHER,

D. C. THORSEN.