

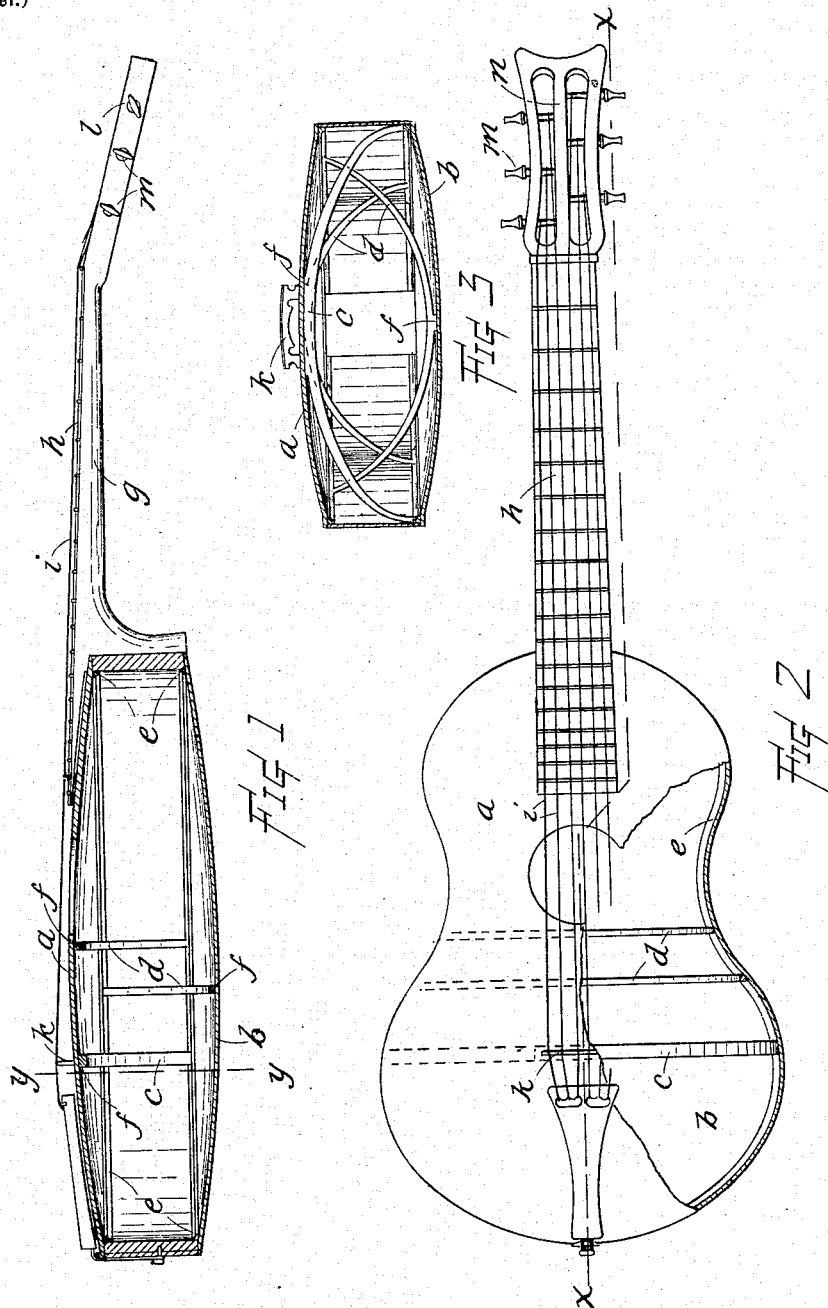
No. 676,470.

Patented June 18, 1901.

W. W. OAKES.
GUITAR.

(Application filed Aug. 6, 1900.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM W. OAKES, OF SEATTLE, WASHINGTON, ASSIGNOR OF ONE-THIRD
TO PAUL HENNING, OF SAME PLACE.

GUITAR.

SPECIFICATION forming part of Letters Patent No. 676,470, dated June 18, 1901.

Application filed August 6, 1900. Serial No. 26,091. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. OAKES, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Guitars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to guitars; and the object of my invention is to provide a guitar having a better quality of tone and giving a larger amount of sound; and it consists in the novel form and construction of the instrument-body and the sound-conductors, together with the arrangement of the neck and the arching of the top and back, all as hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, in which similar letters indicate corresponding parts in all the views, Figure 1 is a longitudinal section of the guitar on the line $x x$ in Fig. 2. Fig. 2 is a plan or face view, part of top being broken to show sound-conductors; and Fig. 3 is a transverse section on line $y y$ in Fig. 1.

a and b indicate, respectively, the top and bottom portions of the body and which are each hand-carved from a single piece of wood of an arched or convex-curved section sloping in all directions to the walls to improve their resiliency and also provide strength sufficient to dispense with the use of cross-braces, necessarily required with the present flat faces and taking therefrom much of their vibratory efficiency.

c and d are sound-conductors of an approximate semi-elliptic or bow form with their ends resting upon and secured to the corner-fillets e and crowns f , bearing against and acting as supports to the opposite faces of the guitar.

I incline the neck g so that the finger-board h thereof will slope sufficiently to be parallel with strings i , thereby equalizing the distances between the strings and said finger-board the entire length of the latter, so that the strings upon being pressed down to the several frets will not oversharpen the notes, and also making it possible to accurately tune the instrument with open strings and keep it in tune under all manipulation of the musi-

cian, and by the sloping of the neck a further useful and important purpose is accomplished—namely, the bridge k is drawn downwardly upon the face by a pressure of approximately thirty pounds when the instrument is in tune, and thus gaining a solidity of tone unattainable by instruments having relatively no downward pressure upon the top of the guitar.

To discard all complicated mechanism requiring the use of metal in the head l and also to facilitate the operations of tuning and permanency of adjustment, I use wooden pegs m and provide an intermediate longitudinal partition n to supply additional bearings therefor.

It will be apparent that in my guitar I am not limited to the use of a bridge of any particular height, and under certain conditions a higher or lower elevation of strings may be used to advantage by substituting a different bridge.

The principal advantages of my guitar are, first, the arching of the top and bottom to dispense with the use of all cross-braces having a tendency to deaden vibration; second, the improved sound-conductors, notably the one c positioned beneath the bridge, replacing a reinforcing-piece which covered so large an area as to muffle those delicate intonations attained by my instrument through the non-interference of the synchronous vibrations of top and bottom and still having sufficient rigidity to assist in supporting the body, and, third, the sloping of the neck for the purposes before enumerated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a guitar, or similar musical instrument, the combination with an arched top, an arched bottom and a neck inclined from a line parallel to the longitudinal axis of the instrument-body, of bow-shaped transversely-arranged sound-conductors, substantially as described.

2. A guitar, or similar musical instrument, having an arched top, an arched bottom, bow-shaped transversely-arranged sound-conductors, a neck inclined from a line parallel to the longitudinal axis of the instrument-

body, and a head to said neck with a central longitudinal partition therein, substantially as set forth.

3. A guitar, or similar musical instrument, 5 having an arched top, an arched bottom, bow-shaped transversely-arranged sound-conductors, a neck inclined from a line parallel to the longitudinal axis of the instrument-body, a head to said neck with a central longitudinal partition therein for the reception 10 of peg ends, and said pegs, substantially as set forth.

4. A guitar, or similar musical instrument, 15 having an arched top, an arched bottom, bow-shaped transversely-arranged sound-conductors, a neck inclined from a line parallel to the longitudinal axis of the instrument-body, a head to said neck with a central longitudinal partition therein for the reception 20 of peg ends, said pegs, and removable bridge, substantially as set forth.

5. The combination with a guitar with body having arched top and bottom portions, of a sound-conductor or a plurality of sound-con- 25 ductors of approximately semi-elliptic form arranged transversely to the body of instrument and adapted to support said top or bot-

tom portions upon the crown or crowns of said sound conductor or conductors and a neck inclining to an angle with the longitu- 30 dinal axis of the instrument, substantially as described.

6. The combination with a guitar with a body having arched top and bottom portions, of a sound-conductor or a plurality of sound- 35 conductors of approximately semi-elliptic form arranged transversely to the body of the instrument and adapted to support said top and bottom portions upon the crown or crowns of said sound conductor or conductors, sub- 40 stantially as described.

7. A bow-shaped sound-conductor for a guitar or similar musical instrument, arranged transversely to the body of said in- 45 strument and the ends thereof seated in corners and shaped to support the opposite face upon the apex of the sound-conductor.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM W. OAKES.

Witnesses:

PIERRE BARNES,
ERNEST E. GILMER.