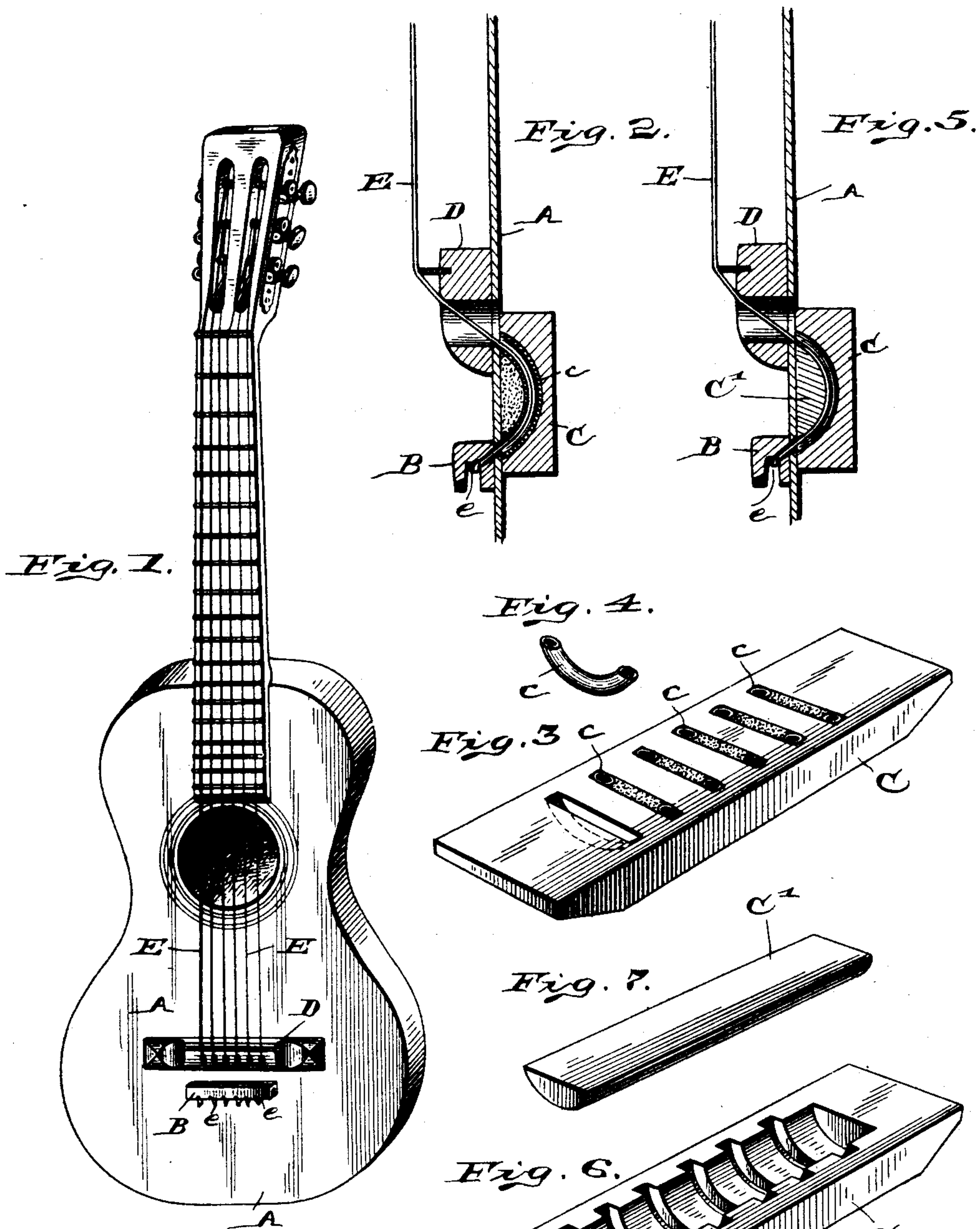


(No Model.)

L. F. & D. P. BOYD.
GUITAR.

No. 539,789.

Patented May 28, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEE F. BOYD AND DAVID P. BOYD, OF MARION, INDIANA.

GUITAR.

SPECIFICATION forming part of Letters Patent No. 539,789, dated May 28, 1895.

Application filed March 5, 1895. Serial No. 540,587. (No model.)

To all whom it may concern:

Be it known that we, LEE F. BOYD and DAVID P. BOYD, citizens of the United States, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Guitars, of which the following is a specification.

The object of our said invention is to provide in the construction of guitars a means whereby the force exerted on the strings shall hold all the bars to which said strings are connected forcibly against the sounding board; and also to provide means whereby strings can be inserted in place conveniently and without the removal of any parts. A guitar provided with attachments embodying our said invention will be first fully described, and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a guitar provided with attachments embodying our invention; Fig. 2, a detail sectional view; Fig. 3, a perspective view of an under bar separately of the form shown in Fig. 2; Fig. 4, a perspective view of one of the curved tubes adapted to be inserted therein; Fig. 5, a detail sectional view similar to Fig. 2, but showing a cheaper construction; Fig. 6, a perspective view of the bottom part of the construction shown in Fig. 5, and Fig. 7 a detail perspective view of the upper portion or cross-bar adapted to be laid into the recess shown in Fig. 6.

In said drawings the portions marked A represent the sounding board of the guitar; B, the bar to which the strings are attached; C, an under bar or a bar below the sounding board; D, the bridge, and E the strings.

The guitar shown is or may be of an ordinary and well known form, including the sounding-board A, bridge D and strings E, and will not, therefore, be further described herein, except incidentally in describing the invention.

The bar B may be a separate bar, as shown, or may be formed in piece with the bridge D. It contains perforations for the strings, and preferably a groove, as shown, to receive and cover the knots *e* on the strings.

The bar C is located on the under side of the sounding-board A, and has curved transverse slots therein through which the strings pass in being inserted, and where the rear portions thereof, next to the extreme ends which are attached to the bar B remain, so long as the strings are in position. The simplest and cheapest form of this construction is illustrated in Fig. 5, where the curved grooves are cut into the face of the bar, and then a second bar C' let into a recess therein, crossing said grooves, and partly filling them, leaving a curved perforation between the two parts. A better form is shown in Fig. 2, where curved tubes *c* are let into the curved grooves which have been formed as before, and the remainder of the grooves then filled, either by a strip as before, or by a suitable strong composition, as glue and sawdust, which holds said curved tubes firmly in place. The principal reason why we prefer to use these tubes, rather than the bare wood, is that it stands the wear of inserting the wires or strings better.

The method of placing the wires or "strings" in position, after the strips or bars are formed and secured in place, is to insert said strings through orifices in the bar B and pass them down through the curved transverse grooves or holes in the bar C, and thence up through and over the top of the bridge D, and thence out to the keys, by which they are tightened. As will be readily seen, the pull of the strings against all of the bars is in such a direction as to tend to hold said bars firmly on the respective sides of the sounding board, and said sounding-board is also strengthened by the presence of said bars; while the entire pull of the strings, being upon the sounding-board, the greatest effectiveness in the matter of vibration and tone is secured.

Having thus fully described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a guitar, with the sounding board, of the string bar and bridge above said board, and a supporting bar under said board, said strings passing from the string bar under or through the under bar and thence up and over the bridge, substantially as shown and described.

2. The combination, in a guitar, of the sounding board A, the string bar B, the under

bar C, and the bridge D, with the strings bearing upon said several bars and attached thereto, substantially as shown and described.

3. The combination, in a guitar, with the
5 sounding board, and the string bar, and
bridge, of an under bar secured to the under
side of the sounding board having transverse
curved grooves therein which serve as guides
in inserting the string, substantially as set
10 forth.

4. The combination, in a guitar, of the
sounding board, the string bar, an under bar
C having transverse curved grooves therein,
an upper part or bar crossing said transverse
15 grooves, the bridge, and the strings attached
to the several parts, substantially as set forth.

5. The combination, in a guitar, of the
sounding board, means for attaching the ends
of the strings and the bridge located above
20 the sounding board, and a bar secured to the

under side of the sounding board for supporting the strings at that point, and said strings, substantially as set forth.

6. The combination, in a guitar, of the
sounding board, the strings, means for attaching and supporting said strings above the
25 sounding board, and a bar below the sounding board containing transverse grooves, with
curved tubes in said grooves, substantially as
set forth. 30

In witness whereof we have hereunto set our
hands and seals, at Marion, Indiana, this 28th
day of February, A. D. one thousand eight
hundred and ninety five, (1895.)

LEE F. BOYD. [L. S.]
DAVID P. BOYD. [L. S.]

Witnesses:

WILLIAM PAULUS,
T. B. DICKEN.