P. BENSON & J. L. JOHANSON.

GUITAR.

APPLICATION FILED SEPT. 18, 1909.

976,428.

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Fig. 1

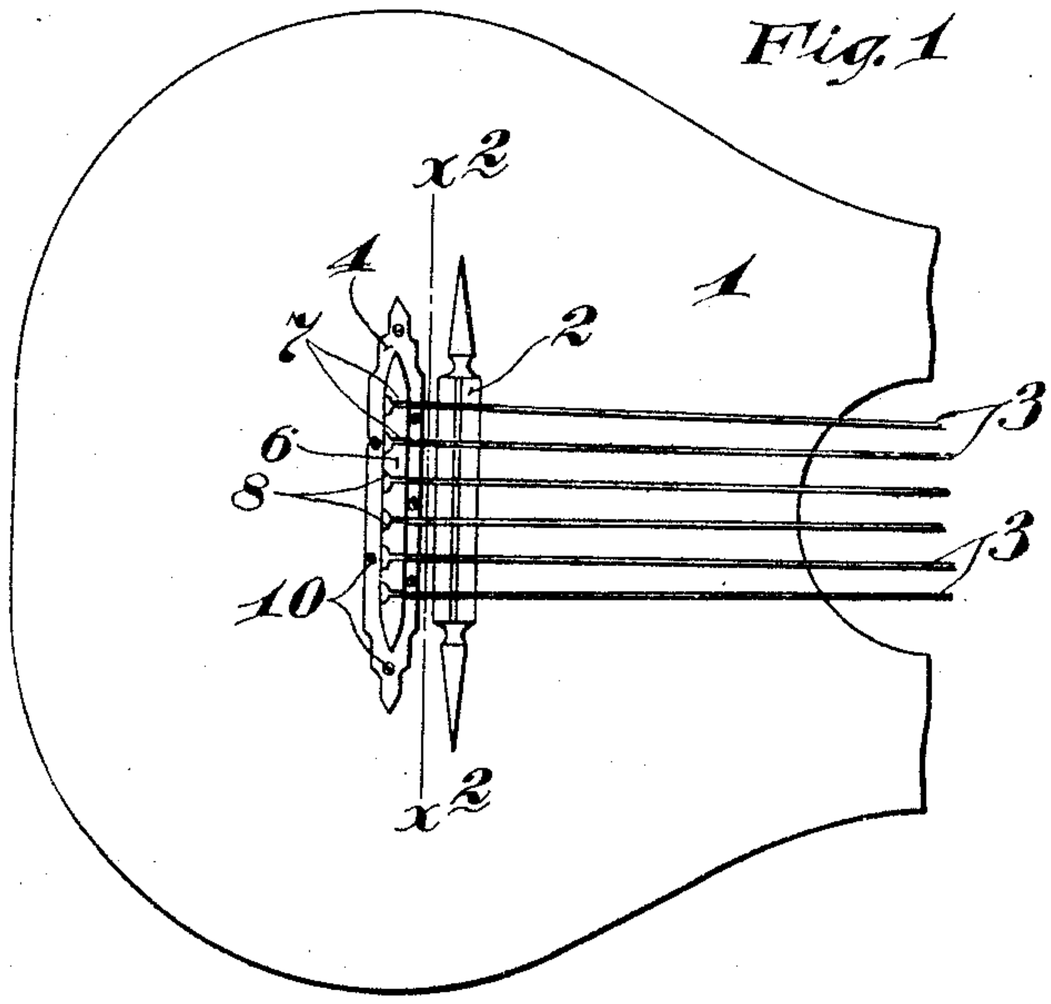


Fig. 2

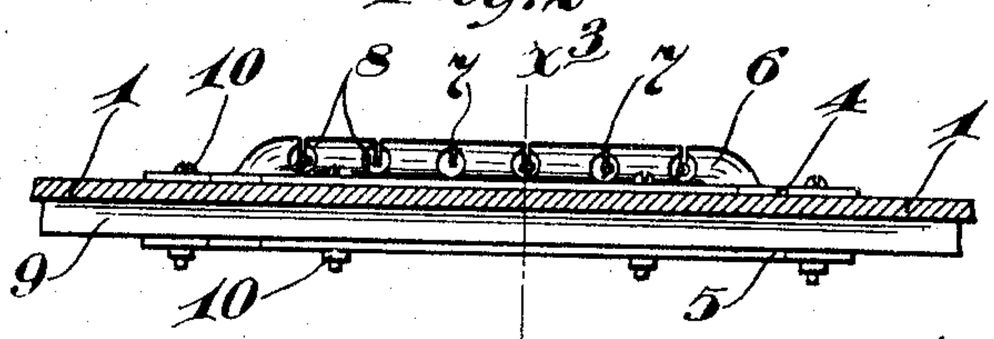


Fig. 3

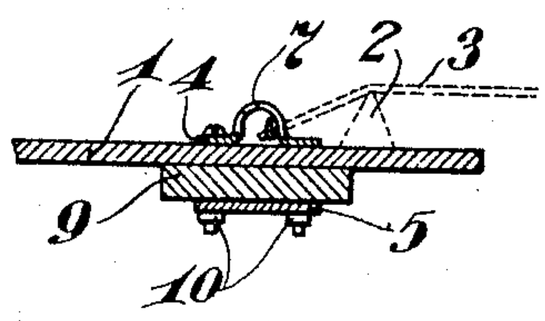


Fig. 4

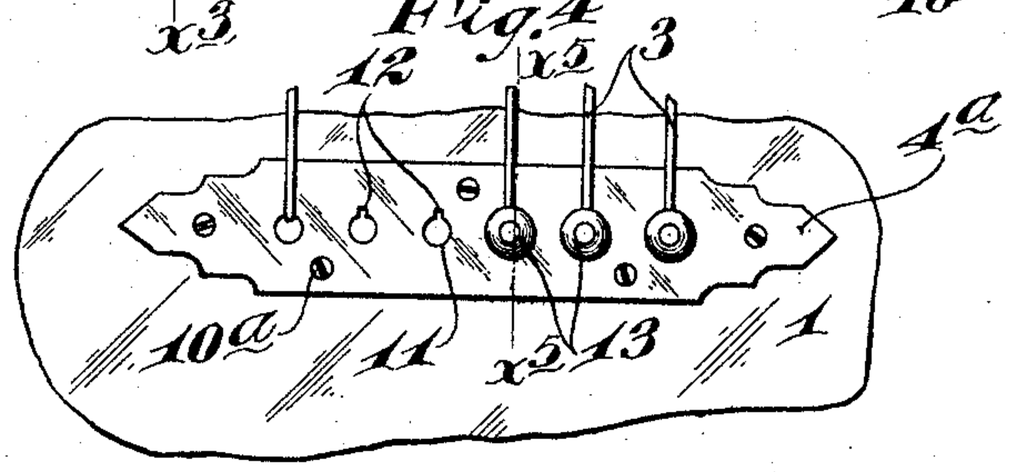
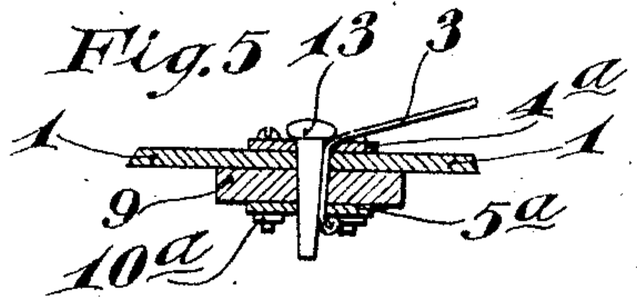


Fig. 5



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GUITAR.

976,428. Specification of Letters Patent. **Patented Nov. 22, 1910.**

Application filed September 18, 1909. Serial No. 518,394.

To all whom it may concern:

Be it known that we, PETER BENSON and JOEL L. JOHANSON, citizens of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Guitars; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide an improved string anchoring device for guitars and similar musical instruments, and to this end it consists of the novel devices and combinations of devices hereinafter described and defined in the claim.

In guitar construction, two modes have heretofore been employed for anchoring the strings to the guitar body. One involves the use of a tail piece connected to the butt end of the guitar body, and the other the use of a wide bridge bar, to which the strings are secured by means of pegs. The latter arrangement, it has been found, permits freer vibrations of the top board of the guitar and, hence, produces better tones than when a tail piece is used; but great annoyance and inconvenience have been caused, especially in damp weather, by the frequent pulling of the wooden bridge bar from the top of the guitar, and by the very considerable strain put upon the same by the strings.

Our invention provides a string anchoring bar which is independent of the bridge bar and is secured to the top board of the guitar by small bolts, or other mechanical means, which positively prevent the said anchoring bar from being torn from the guitar top and, at the same time, preserves all of the tone qualities of the guitar.

In the accompanying drawings, which illustrate several forms of the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a plan view, showing the rear portion of the guitar body and one of our improved anchoring devices applied to the top board thereof; Fig. 2 is an enlarged transverse section taken on the line x^2 x^2 of Fig. 1; Fig. 3 is a detail in vertical section, taken on the line x^3 x^3 of Fig. 2; Fig. 4 is a fragmentary plan view, illustrating a modified form of the anchoring device; and Fig. 5 is a detail in vertical section, taken on the line x^5 x^5 of Fig. 4.

The numeral 1 indicates the top board of the guitar body, the numeral 2 the bridge and the numeral 3 the strings.

In the preferred form of the anchoring device illustrated in Figs. 1 to 3, inclusive, it comprises outer and inner thin metal clamping bars 4 and 5, respectively. The outer clamping bar 4 has a central longitudinally extended approximately semi-cylindrical bulge 6 that is formed with string-receiving notches 7 which, at their rear extremities, terminate in enlargements or perforations 8, through which the knots on the ends of the strings may be passed. The notches 7 are of such width that the knots on the ends of the strings cannot be drawn therethrough and, hence, will be held within the concavity of the said bulged portion 6. The outer clamping bar 4 is placed directly on top of the guitar top board 1 immediately back of the bridge 2, while the inner clamping bar 5 is placed against the bottom of a transversely extended wooden reinforcing bar 9 which, in turn, is glued to the said top board 1. Small nut-equipped screws 10 are passed through the clamping bars 4 and 5, through the top board 1 and through the reinforcing bar 9, and when these bolts are tightened, the two clamping plates 4 and 5 will be very tightly drawn against the top board 1 and reinforcing bar 9, respectively, and thus the string-anchoring device is firmly secured directly to the top board of the guitar.

In the construction illustrated in Figs. 4 and 5, both the outer clamping bar 4^a and inner clamping bar 5^a are constructed from thin flat sheets of metal and these are secured together and clamped respectively against the top board 1 and reinforcing bar 9 by short nutted screws 10^a. To hold the knotted ends of the strings 3, peg seats 11, having small notches 12 at their forward portions for the reception of the ends of the strings, are formed in the said clamping plates, top board and reinforcing bar. The knotted ends of the strings are held in the notches 12 by anchoring pegs 13 that fit the said seats 11.

In both of the arrangements described, the strings are anchored directly to the guitar top and are given quite an abrupt downward

pull over the bridge so that the strings will be tightly seated on the bridge.

What we claim is:

A guitar provided with a bridge on its top board and a string anchoring device independently applied back of, but in close proximity to said bridge and said anchoring device comprising clamping bars, one on the inner and one on the outer side of said top plate, and clamping bolts or screws connecting the said clamping bars and rigidly securing the same to said top board.

In testimony whereof we affix our signatures in presence of two witnesses.

PETER BENSON.
JOEL L. JOHANSON.

Witnesses:
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