

(No Model.)

C. M. BORCUR.
GUITAR OR LIKE INSTRUMENT.

No. 601,071.

Patented Mar. 22, 1898.

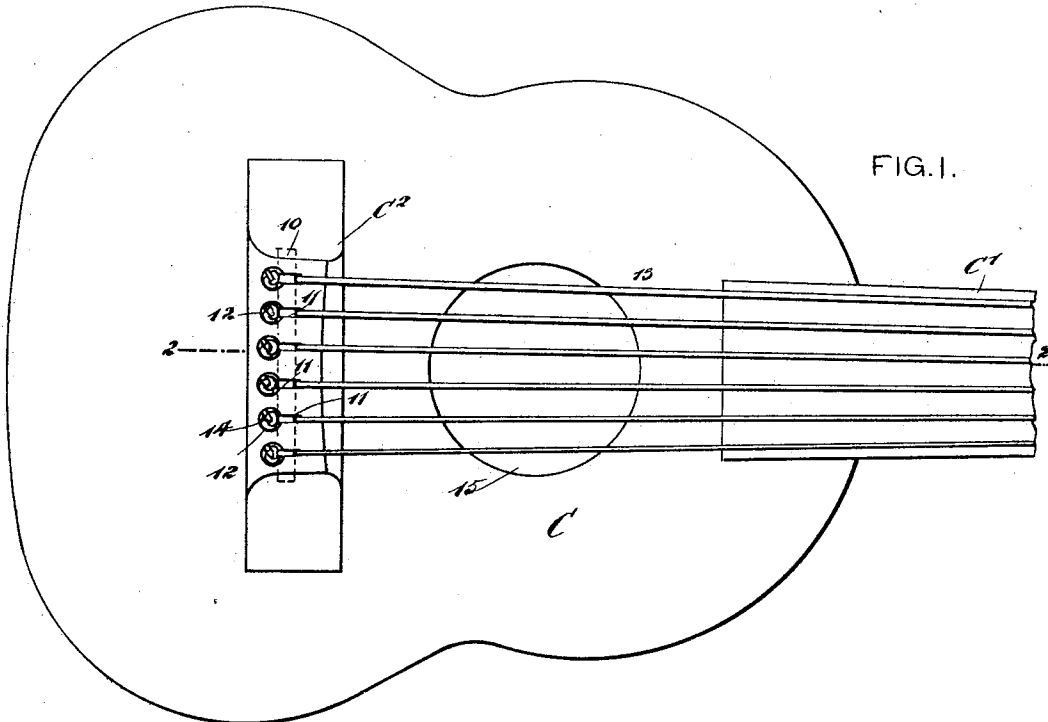


FIG. 1.

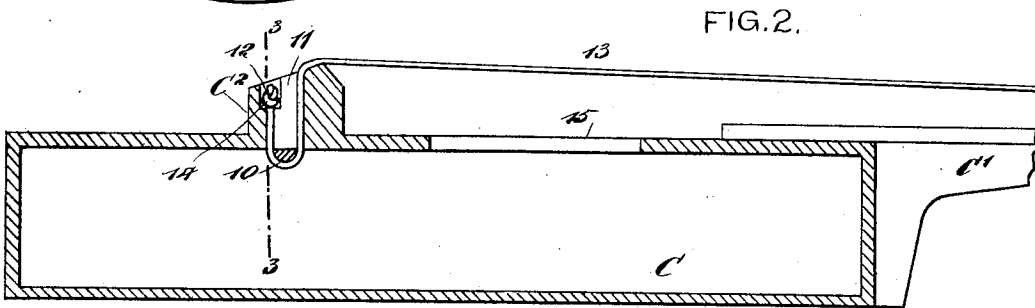


FIG. 2.

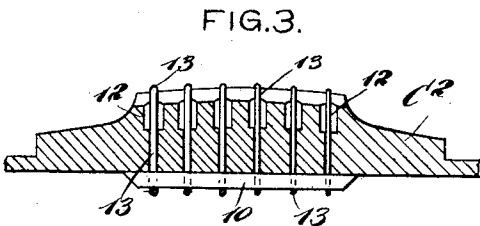


FIG. 3.

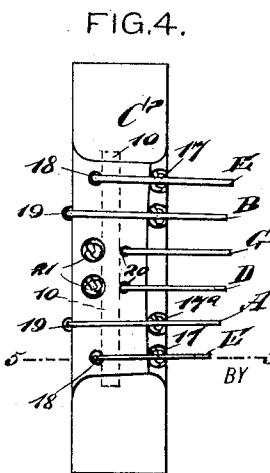


FIG. 4.

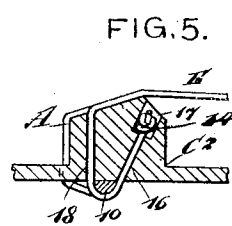


FIG. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES M. BORCUR, OF DODGE CITY, KANSAS.

GUITAR OR LIKE INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 601,071, dated March 22, 1898.

Application filed October 22, 1896. Renewed February 11, 1898. Serial No. 669,976. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. BORCUR, of Dodge City, in the county of Ford and State of Kansas, have invented a new and useful
5 Improvement in Guitars and Like Instruments, of which the following is a full, clear, and exact description.

My invention relates particularly to an improved construction of guitar-bridges and to the manner of fastening the strings to the same, the object of the invention being to so locate the openings for the strings in the bridge and to so reinforce the bridge and top of the instrument that neither the bridge nor
15 the upper face of the guitar will be liable to injury by the strings when placed under severe tension.

A further object of the invention is to so construct the bridge that the strings may not only be attached to the bridge, but whereby the bight of the strings will be brought to an engagement with a cross-bar located upon the under face of the upper board of the instrument, thereby preserving the upper board
25 against undue strain and causing the strain from the strings to be sustained jointly by the bridge and the aforesaid transverse bar.

The invention consists in the novel construction and combination of the several
30 parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a guitar, illustrating the application of the improvement thereto. Fig. 2 is a longitudinal section taken substantially on the line 2 2 of Fig. 1. Fig.
40 3 is a transverse section taken practically on the line 3 3 of Fig. 2. Fig. 4 is a plan view of the bridge, illustrating different ways in which the strings of the instrument may be secured thereto; and Fig. 5 is a transverse section taken substantially on the line 5 5 of
45 Fig. 4.

C represents the body portion of the guitar, C' the neck, and C² the bridge, which is secured to the body of the guitar in the usual manner and occupies the usual position. Below the bridge a cross-bar 10 is secured in any suitable or approved manner to the un-

der surface of the upper face of the body of the guitar, as shown in Figs. 2 and 3, and the bridge is provided with a series of vertical
55 slots 11, corresponding in number to the number of strings on the instrument, which slots extend through the bridge from top to bottom, and the cross-bar 10 crosses the bottom portion of all of the slots 11, the said slots being
60 likewise continued through the top portion of the instrument.

At the upper rear portion of each slot 11 a recess 12 is made, which is in the nature of a countersink, and each string 13 on the instrument is provided at one end with a knot 14.
65 In applying the strings the unknotted end of the string is passed downward through the rear portion of a slot 11, upward around the cross-bar 10, and thence upward through the
70 front portion of the slot in the bridge, and outward from the bridge over the neck to be secured to any approved form of key. The strings after they have been passed through
75 the bridge and around the transverse bar 10 are drawn forwardly until the knots 14 shall rest in the countersinks 12 in the bridge, as is clearly shown in Fig. 2.

It will be observed that the cross-bar 10 passes through the bights of all of the strings
80 and that when the strings are secured to the bridge in this manner they are securely fastened in place and the tension of the strings is divided between the bridge and the cross-
85 bar 10, little of the strain being sustained by the top of the instrument. It is also evident that the knots will be firmly seated in their recesses 12 and will not jar or vibrate and thus interfere with the tone of the instrument.

In passing the strings downward through
90 the bridge around the cross-bar and thence upward through the bridge the strings may be manipulated by passing the hand into the instrument through the sound-opening 15 in the sounding-board or top of the instrument,
95 or a bent wire, a pair of pliers, or other instruments of like character may be introduced through the said opening 15 to facilitate the manipulation of the strings.

In Fig. 4 I have illustrated a bridge in
100 which various of the strings are secured in slightly different ways. The strings are designated, respectively, by their names, reading E, A, D, G, B, E, one string (designated

as E) being the fine gut string and the other string (designated likewise as E) being the coarsest or bass string. The manner in which the two strings E are secured to the bridge is clearly shown in the cross-section in Fig. 5, in which it will be observed that a channel 16 is produced in the bridge extending from its front downward and rearward through the sounding-board of the instrument, and the upper end of the channel 16 is provided with a recess or a countersink 17. A second channel 18 is carried vertically upward through the bridge near its rear. The string E is knotted, and the unknotted end is passed downward through the channel 16, around the cross-bar 10 beneath the bridge, and thence upward through the upright channel 18 out from the bridge, and the string is drawn tightly, causing the knot in the string to enter and be concealed in the recess or countersink 17. The manner in which the strings A and B are attached is by passing the strings through the bridge from the front through channels similar to the channels 16 and across the cross-bar 10, thence outward through openings 19, made in the sounding-board at the rear of the bridge, and across the bridge to the neck of the instrument. The strings D and G are illustrated as secured in a different manner, the strings being passed downward through inclined openings 21, made in the rear portion of the bridge, thence under the cross-bar 10, and upward from the bridge through openings 20, made therein near the front, the channels 21 being provided with countersinks to receive the knots on the strings.

Either of the methods illustrated and described for passing the strings through the

bridge may be employed with equally good results; but apertures in the bridge are preferably employed instead of slots, as having less tendency to weaken the structure of the bridge. It is obvious that as the tendency of the strings at their knotted ends is to pull downward the bridge is held tightly to the sounding-board by the strings when under tension, whereas under the ordinary mode of attaching the strings to the bridge the former tend to drag the latter from the sounding-board.

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

A guitar or like instrument provided with a sounding-board, and a bridge having channels therein extending from its front downward and rearward and through the sounding-board of the instrument and a countersunk portion at the upper end of each channel, the sounding-board being provided with openings in the rear of said bridge and in alignment with said channels, a cross-bar secured to the under face of the sounding-board and in the rear of said channels, and strings passed downward through said channels, upward through the openings in the rear of the bridge, and over the said bridge forwardly to the neck of the instrument, said cross-bar receiving the bights of the strings and the countersunk portions receiving the knotted ends of the same, as and for the purpose set forth.

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Witnesses:

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