

[54] **TUNING DEVICE**
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1,823,683 9/1931 Gardner.....84/318
 3,185,012 5/1965 Dunlop.....84/318
 3,227,028 1/1966 Simms.....84/318

FOREIGN PATENTS OR APPLICATIONS

1,048,545 11/1966 Great Britain.....84/314

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 [58] **Field of Search**.....84/318, 315, 317, 452

[57] **ABSTRACT**

A tuning device of the capo-tasto-type for stringed instruments, wherein a supporting crossbeam carries a plurality of resilient pressure pieces, each contacting some of the strings of the instrument. In a preferred embodiment, the pressure pieces are spaced from the crossbeam and supported by individual supporting bridges above each string.

[56] **References Cited**
UNITED STATES PATENTS
 551,254 12/1895 Brand.....84/318
 1,518,719 12/1924 Whiteman.....84/318

3 Claims, 3 Drawing Figures

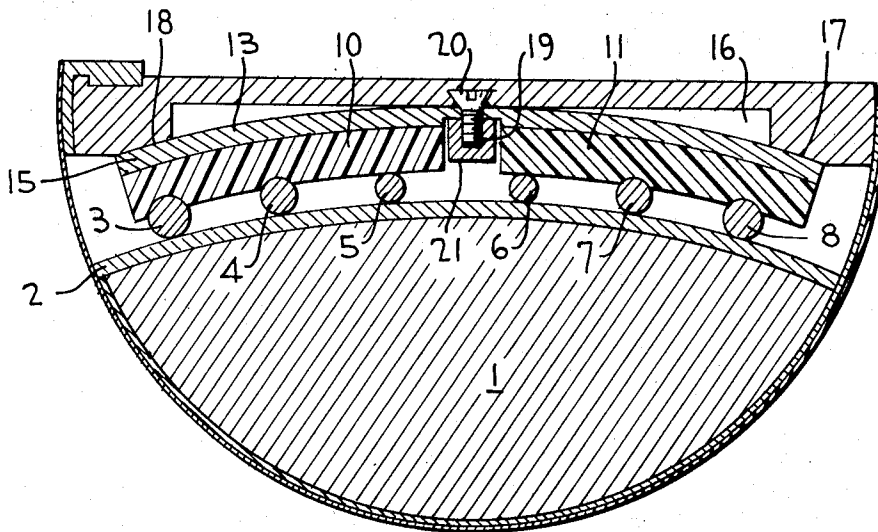


FIG. 1

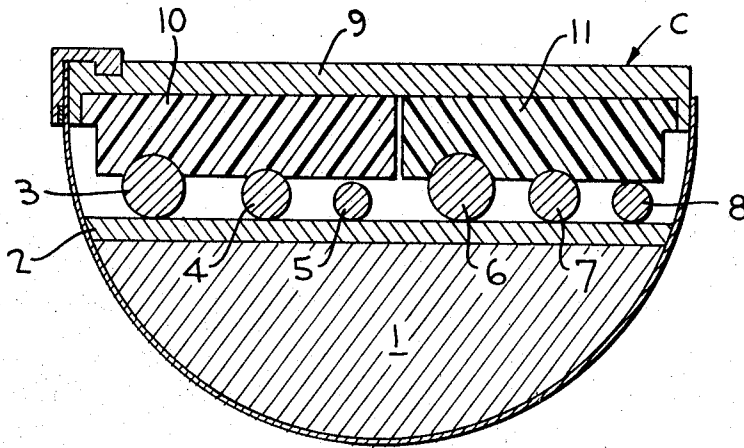


FIG. 2

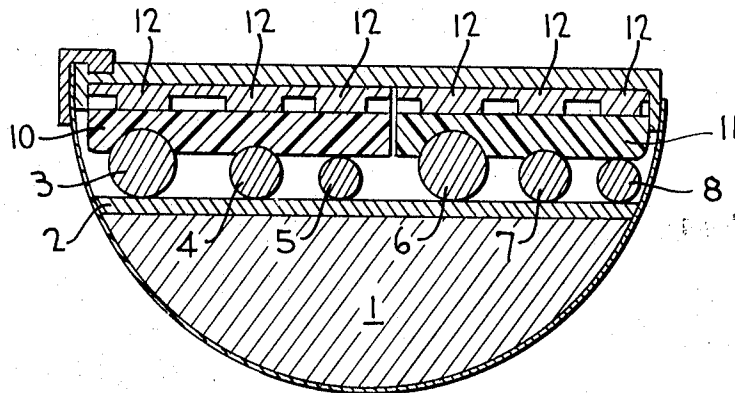
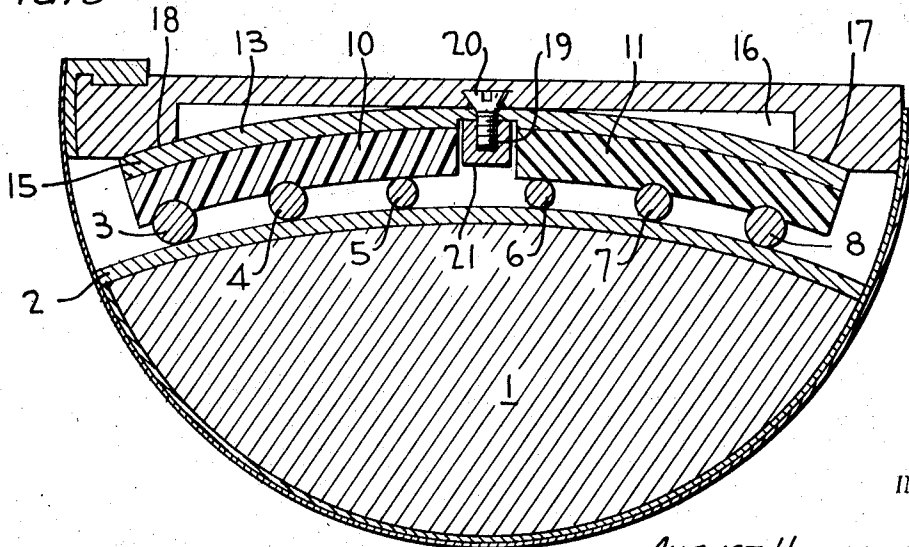


FIG. 3



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TUNING DEVICE

BACKGROUND OF THE INVENTION

It has heretofore been proposed that the crossbeam of a capo tasto or similar tuning device be provided with a pressure piece for each string which is arranged in a bed in order that it can be shifted in relation to height and is supported in a resilient manner.

The invention provides a further development of the tuning device by providing the crossbeam with at least two pressure pieces and several strings being associated with each pressure piece.

SUMMARY OF THE INVENTION

A tuning device for plucking- and strumming-type instruments such as guitars, lutes and banjos in which the neck of the instrument carries a plurality of strings, comprising a crossbeam mounted on the neck provided with at least two pressure pieces, several of the strings being operably associated with each pressure piece.

Further objects and advantages of the present invention will become more readily apparent to persons skilled in the art from the following detailed description and annexed drawings, and in which drawings:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a cross-sectional view taken through the neck of a stringed instrument of the plucking- and strumming-type illustrating a tuning device embodying the present invention,

FIG. 2 is a view generally similar to FIG. 1 illustrating a further embodiment of the invention, and

FIG. 3 is a cross-sectional view similar to FIGS. 1 and 2 illustrating the invention employed with a neck in which the fingerboard is convex.

DETAILED DESCRIPTION OF THE INVENTION

In the drawings, corresponding components in the several embodiments will bear the same reference numerals.

Referring to FIG. 1, there is illustrated a neck 1 of a stringed instrument of the plucking or strumming type, such as a guitar, lute or banjo, which is provided with a fingerboard 2 and a plurality of strings 3-8 which extend longitudinally of the fingerboard. The strings 3-8 are adapted to be pressed downwardly by a crossbeam C which constitutes the inventive tuning device.

The crossbeam includes a bed 9 and at least two pressure pieces 10 and 11 arranged in the bed for pressing the strings resiliently against the fingerboard 2. It will be noted that several strings are associated with each pressure piece and in FIG. 1, the strings 3, 4, and 5 are associated with the pressure piece 10 and the strings 6, 7, and 8 with the pressure piece 11.

The pressure pieces 10 and 11 are formed from a soft, resilient and elastic plastic material and it will be noted that the strings 3 and 4 together with the strings 6 and 7 are impressed therein to depths correspond with their differing cross sections. The strings 5 and 8 of smallest cross section are disposed between the lower surfaces of the pressure pieces 10 and 11 on the one hand and the fingerboard 2 on the other hand.

With reference to FIG. 2, it will be noted that supporting bridges 12 are provided for the crossbeam 9 and the bridges 12 are disposed in parallelism to and aligned with the strings 3-8 and the bridges correspond in number to the number of strings. The bridges 12 rest on the pressure pieces 10 and 11 so that upon pressing the tuning device downwardly onto the strings, the pressure pieces 10 and 11 are supported against the crossbeam 9 by way of the bridges 12. In this fashion, a better sound will develop following the tuning of the entire set of strings higher with the assistance of the tuning device.

Heretofore all types of designs of tuning device have been suitable only for instruments of the plucking or strumming

type which have a level fingerboard. The present invention provides a tuning device which can be employed with an instrument in which the fingerboard viewed in cross section is curved convexly outwardly with the tuning device allowing the strings to be pressed evenly against such fingerboard. To accomplish the desired ends, a leaf spring bearing the pressure pieces and against the effect of its own spring action between the ends thereof is adjustably arranged so that it can be pressed or urged into the crossbeam.

A tuning device of this particular type is illustrated in FIG. 3 in which it will be noted the fingerboard 2 is curved convexly on the neck 1 towards the exterior or top. In order to press the strings 3-8 evenly onto the fingerboard, the pressure pieces 10 and 11 are disposed on a leaf spring 13 which is arranged fixably to enable the spring to be pressed into the crossbeam 9 against the effect of its own spring action between end portions 14 and 15. More specifically, the spring 13 bridges or spans a groove 16 or recess provided in the crossbeam 9 and is supported between its end portions 14 and 15 by shoulders 17 and 18 which limit the groove 16.

A screw 19 has its head 20 sunk in the crossbeam 9 at approximately the center of the groove 16 and the screw is forced through an aperture in the leaf spring 13. A tightening nut 21 is threaded onto the screw 19 for supporting the leaf spring.

With an increased tightening of the nut 21 on the screw 19, the leaf spring 13 will bend into the groove 16 of the crossbeam 9 and in this manner, the pressure pieces 10 and 11 will assume a curve which corresponds to the convex curve of the fingerboard 2. Hence, there results an arrangement in which the leaf spring is arranged fixably and the spring can be pressed or urged into the groove 16 against the effect of its own spring action between its end portions 14 and 15.

This invention is not to be confined to any strict conformity to the showings in the drawings changes or modifications may be made therein so long as such changes or modifications marked no material departure from the spirit and scope of the appended claims.

I claim:

1. A tuning device for plucking and strumming instruments, such as guitars, lutes and banjos, having a neck, a fingerboard and a plurality of strings extending longitudinally of the fingerboard, said tuning device comprising a crossbeam mounted on the neck and spanning the fingerboard, and at last two pressure pieces mounted on said crossbeam, each of said pressure pieces engaging at least some of the strings and comprising an elastic yieldable material into which each of the strings is pressed to a depth proportional to the diameter of the respective string, a leaf spring fixably arranged relative to the crossbeam, said leaf spring carrying said pressure pieces and being capable of being pressed in an arcuate configuration into the crossbeam against the effect of its own spring action between the free ends thereof, whereby said tuning device may be mounted on an instrument having a fingerboard of arcuate cross section, said crossbeam being provided with a groove bridged by said leaf spring, said leaf spring being pressed into said groove intermediate its ends, and the free ends of the leaf spring being supported by shoulders on the crossbeam which limit the length of the groove.
2. The tuning device as claimed in claim 1 including a headed screw, the head of the screw being sunk in the crossbeam centrally with respect to the groove, the screw extending through an aperture in the leaf spring and a nut threaded onto the screw for supporting the leaf spring on the crossbeam.
3. A tuning device as claimed in claim 1, wherein said pressure pieces are spaced from said crossbeam, and further comprising a plurality of upstanding supporting bridges corresponding in number to the number of strings, each of said supporting bridges being disposed parallel to and aligned with one of the strings, said pressure pieces being supported by said crossbeam only at said supporting bridges.

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