Oct. 1, 1968 B. STEINBORN 3,403,430

ADJUSTABLE STRAP

Filed Dec. 1, 1966

FIG. 1

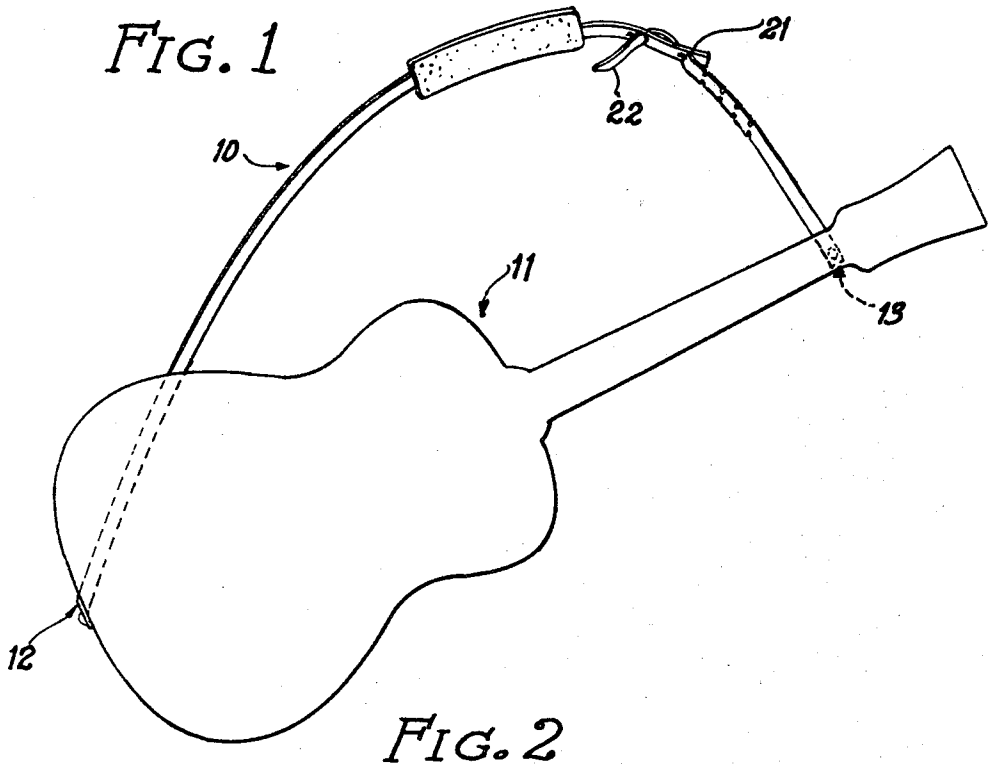



FIG. 2

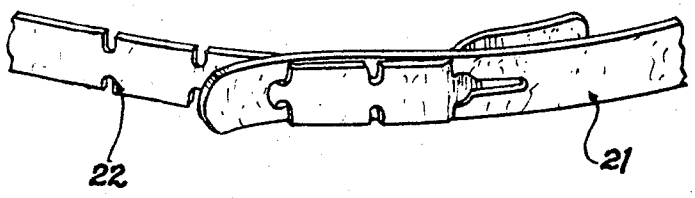
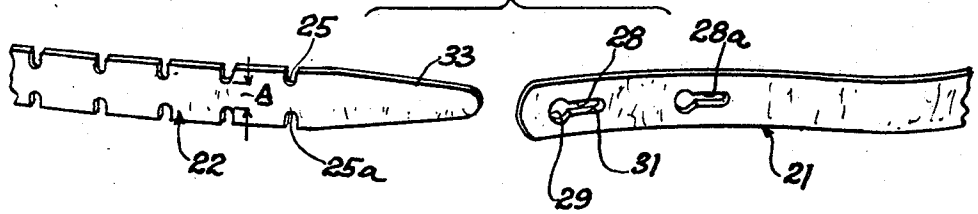



FIG. 3




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# ADJUSTABLE STRAP

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## ABSTRACT OF THE DISCLOSURE

Means for adjusting the length of a strap for a musical instrument or other object to be supported on the body. The strap comprises two parts, one end of each part having means to secure the strap to the instrument. The other end of one of the parts has a plurality of pairs of marginal notches, the notches of each pair being disposed opposite one another. The other end of the other part has at least two slots located on a common longitudinal axis. The slots are of keyhole form having a width and length to permit passage of the one part portion flatwise. The transverse distance between the notches of a pair is substantially the same as the larger portion of the slot in order that, following passage of the end of the first part through the slots the same may be twisted 90° to engage the sides of the notches with the margin of each slot.

This invention relates to adjustable straps. Specifically it has reference to a strap for a musical instrument, such as a guitar, as well as other objects to be supported on the person's body. As is recognized a strap of this class frequently includes means for incremental adjustment in length. The present invention has reference to improvements in such adjusting means.

A principal object of the invention is to provide adjusting means which may be manipulated with little effort but which, when set at a particular location, is far more positive than prior means intended for the same purpose.

Other objects and advantages will become apparent from the ensuing description which, taken with the accompanying drawing, discloses a preferred form in which the invention may be embodied in practice.

In this drawing:

FIG. 1 is a generally perspective view showing a strap embodying the invention as assembled with a guitar;

FIG. 2 shows intermediate portions of the strap incorporating the adjusting means in co-joined relation; and

FIG. 3 shows the same portions as in FIG. 2, but separated.

Broadly regarded, the invention comprises the interruption of the strap at some convenient place along its length to provide two end portions and the provision, adjacent the free end of one portion, of a plurality of pairs of marginal notches, the members of each pair being transversely opposite. The free end of the other strap portion is provided with one or more longitudinally aligned slots, preferably of keyhole outline. The length of the slot is approximately equal to the width of the mating strap portion and its width is aproximately equal to the thickness of the said portion. Thus, by twisting either or both of the strap portions the notched portion may be passed through the slot and, upon reverse twisting, a selected pair of notches is engaged over the margin of the slot.

As a result a secure engagement is achieved—the joint being incapable of being shifted in either direction. It will be understood that the width of the slot will be substantially the same as the distance between the pair of notches in order to avoid unnecessary force in securing the two strap portions or transverse buckling or deformation of the same. In the case of a keyhole slot the circular portion will have a diameter essentially equal to the distance between a pair of notches. In practice it may



be preferred to employ two slots in order that a pair of notches may be engaged in each slot. By so doing the notched strap end may be passed through from one side of the slotted strap end, then returned through the other slot to the opposite side thereby making the joint doubly secure and neater in appearance. Disconnection for readjustment is obviously the reverse of the foregoing.

Adverting to the drawing there is shown, by way of example, a strap **10** for a guitar **11**. The strap is provided with any suitable means **12** and **13** whereby the same may be attached to the instrument. Since such means may be any well-known expedient and constitute no part of the invention per se further explanation is deemed unnecessary.

At some convenient point along its length the strap **10** is interrupted to provide end portions **21** and **22** respectively. The portion **22** is provided with a plurality of pairs of marginal notches, e.g. **25** and **25***a*, the members of each pair being positioned transversely opposite, and the configuration of the slots being symmetrical about a center line, e.g. with straight, parallel sides. It will be understood that the depth of the notches in relation to the width of the portion **22** will be calculated to insure reliable engagement with the companion slots to be described without weakening the remaining width A. In order to minimize tearing, the bottom of the notches is desirably semicircular. The longitudinal spacing between the notches, viz, the pitch, may be of any suitable dimension, depending on the desired increments, e.g. 1".

The strap portion **21** is provided with a slot, but preferably a pair of slots **28**, **28***a*, which may be of uniform width or of keyhole shape, as illustrated. In the case where the width of the slot is uniform the same will be substantially equal to A. In the case of a keyhole slot the circular part **29** will be substantially equal to A, and the straight part **31** will be sufficiently wide to pass the thickness of the strap portion **22**. Whether the slot is of uniform width or keyhole-shaped, the length thereof will be such as to pass the width of the strap portion **22**.

From the foregoing it will have become apparent that, to engage the strap portions **21** and **22** the end **33**, desirably tapered to provide lead, is passed through the slot **28** (FIG. 2) until a selected pair of notches **25**, **25***a* are in position, whereupon the portion **22** is twisted 90° to lock the notches into the slot **28**. Thereupon the end **33** is passed through the slot **28***a* and twisted 90°. Obviously, both strap portions may be twisted, each through, say, a 45° angle. The end result is as seen in FIG. 2. It will be observed that the pitch of the slots **28**, **28***a* is essentially equal to the pitch of the pairs of notches or some multiple thereof in order that the completed joint may present a flat-lying aspect.

While I have shown particular embodiments of my invention, it will be understood, of course, that I do not wish to be limited thereto since many modifications may be made and I, therefore, contemplate by the appended claims to cover any such modifications as fall with the true spirit and scope of my invention.

I claim:

**1.** A strap adjustable in length for supporting an object such as a musical instrument on the body comprising: first and second elongated parts, one end of each part having means for attaching the strap to the object, a portion of the other end of the first part having a plurality of pairs of marginal notches, the members of each pair being transversely opposite each other, each notch having essentially parallel sides and a substantially semicircular bottom, said pairs having uniform pitch in the longitudinal direction, the depth of each notch being such that the bottom of the respective members are a predetermined distance apart, the width of each notch being

substantially equal to the thickness of the second part, and the axis of each member of the pair being aligned, a portion of the other end of the second part having a pair of longitudinally-aligned slots of keyhole outline, said slots being spaced apart by some multiple of said pitch, the width and length of each slot being at least such as to pass said end portion of the first part and the largest dimension of the enlarged part of the slot measured transversely of the second part being substantially equal to said predetermined distance, whereby the end portion of the first part may be passed through two of the slots in turn and twisted 90° to position said notches in overlying engagement with the margin of said enlarged portion.



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