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ADJUSTABLE GUITAR BRIDGE

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8 Claims. (Cl. 84—298)

1

The present invention relates to the bridges of stringed musical instruments and is concerned primarily with a bridge which includes individual string rests, each of which is adjustable to vary the effective position of that rest.

At the present time stringed musical instruments of the type of which a guitar is typical, include a bridge which is adjustable as to height. However, with the known bridges of this type the string rests for the several strings are assembled as a complete unit and are not individually adjustable. In order to achieve proper tuning it is often desirable that a string rest be moved longitudinally of the particular string with which it is assembled. At the present time there are no devices available for achieving this adjustment.

With the foregoing in mind, the present invention has in view as its foremost objective the provision of a bridge for stringed musical instruments which includes a plurality of string rests, each of which is adjustable longitudinally of the string with which it is associated, together with means of holding said rests in an adjusted position.

More in detail, the invention has as an object the provision, in an adjustable bridge of the type indicated, of a main body member formed with a plurality of channels with crests therebetween. Received in each channel is an individual string rest comprising a base and a central upstanding flange. Mounted on each crest is a clamping plate having fingers engaging the flange on the string rest. Each clamping plate is formed with a slot and screw means are associated with the slot for holding the plate in an adjusted position.

Various other more detailed objects and advantages of the invention such as arise in connection with carrying out the above noted ideas in a practical embodiment will in part become apparent and in part be hereinafter stated as the description of the invention proceeds.

The invention therefore comprises an adjustable bridge for stringed musical instruments which consists of a main body member that is adjustable as to height and which is formed with a plurality of channels with crests between the channels and with each channel receiving a string rest that is slidable therein and held in an adjusted position by a clamping plate mounted on an adjacent crest with screw clamping means associated with said clamping plate.

For a full and more complete understanding of the invention, reference may be had to the following description and accompanying drawing, wherein:

2

Figure 1 is a front view mostly in elevation but with parts broken away and shown in section, of an adjustable guitar bridge that is designed in accordance with the precepts of this invention.

Figure 2 is a top plan view of the bridge shown in Figure 1, and

Figure 3 is a perspective view showing one of the string rests and the clamping plate associated therewith in exploded relation.

Referring now to the drawing wherein like reference notes corresponding parts, and first, more particularly, to Figure 1, the present invention is illustrated as embodied in a guitar bridge. Obviously, a bridge designed in accordance with the same principles could be included with other stringed musical instruments wherein it is desired to provide individually adjustable string rests.

Figure 1 discloses a base "B" which may be of any appropriate material, such as the wood from which the instrument is made. This base includes a lower face 10 which has a curvature corresponding to that of the musical instrument and over which it is adapted to be engaged. The base "BB" includes a pair of pedestals 11 and 12 between which there is a central depression 13. Mounted on each of the pedestals 11 and 12 and held against rotation is a screw stem 14 with which is associated an elevating wheel 15. There is an elevating wheel 15 immediately over each pedestal 11 and 12.

The bridge proper comprises a main body portion 16 which may be made from any appropriate material such as wood or plastic, and which has end extensions or wings 17 and 18 each of which is formed with a bore 19 that receives one of the screw stems 14. These wings 17 and 18 rest on the elevating wheels 15 so that upon rotation of the latter they may be raised or lowered in a well known or obvious manner.

The main body portion 16 is formed with an intermediate section 20 which is complementary to the recess 13 and which extends partially down into the latter. Thus, when the main body portion 16 is raised or lowered, this intermediate section 20 moves in and out of the recess 13.

The main body portion 16 is formed with a plurality of cuts or channels 21 which extend completely across the main body member 20 and which, when assembled with the musical instrument, assume the same direction as the strings.

The presence of the channels 21 provide intervening partitions 22 between the channels 21 and the upper surface of which provides a crest 23 relative to each channel.

3

Referring now particularly to Figure 3, a string rest is designated 24. Each string rest 24 comprises a base portion 25 which has a shape corresponding to one of the channels 21 and which is snugly received therein with a fair degree of accuracy. Each of these string rests 24 is slidable in the channel 21 in which it is received.

Upstanding from the base 25 of each string rest 24 is an intermediate flange 26 formed with a cut or groove 27 which receives the string of the musical instrument.

A clamping plate 28 is positioned on each crest 23. Each clamping plate 28 carries a pair of depending legs 29 and 30 formed with feet 31 and 32 which straddle the flange 26 of the string rest 24. Each clamp 28 is also formed with an elongated slot 33.

As shown in Figure 1, there are six of the channels 21. This means there are five of the partitions 22 but seven of the crests 23, as one of these crests is formed at each side of the outermost channels 21. Thus, the central partition 22 does not carry one of the clamping plates 28 although it may be provided with a nut which will render the partition of the same appearance as the others.

At one side of the central partition the clamping plates 28 are arranged with the feet 31 and 32 extending inwardly and the same arrangement holds true for the clamping plates which are mounted on the other side of the central partition.

Referring again more particularly to Figure 1, the bridge 16 is shown formed with a plurality of bores 34, each of which extends entirely through the main body portion 16 and one of the partitions 22, each bore 34 being substantially midway of the extremities of each partition and opening into the respective crest 23. The lower end of each bore is counterbored as indicated at 35 and the counterbore is preferably of non-circular formation. A screw stem 36 is positioned in each bore 34 and has a head 37 received in the counterbore 35. Thus, the screw stem 36 is held against rotation.

Each screw stem 36 extends upwardly through the slot 33 in one of the plates 28. The protruding portion carries a thumb nut 38 which preferably has a knurled surface to facilitate its manipulation.

While the manner of adjusting each string rest 24 is believed to be obvious from the description given, it may be noted that when it is desired to adjust the position of one of these rests the respective thumb nut 38 is loosened. The clamping plate 28 may now be moved in the desired direction, and due to the interlock with the string rest 24 caused by the feet 31 and 32 which straddle the flange 26, the string rest 24 will be correspondingly moved in its channel 21. After the desired adjustment has been obtained, the thumb nut 38 is again tightened to immovably clamp the plate 28 against the crest 23 and thereby hold the string rest 24 in its adjusted position.

While a preferred specific embodiment of the invention is herein set forth, it is clearly understood the invention is not to be limited to the exact constructions, mechanisms and devices illustrated and described because various modifications of these details may be provided in putting the invention into practice within the purview of the appended claims.

What is claimed is:

1. In an adjustable bridge for musical instruments, a main body member formed with a chan-

4

nel, a string rest slidably positioned in said channel, a clamping plate adjustably mounted on said body member on one side of said channel, means to hold said clamping plate in an adjusted position, and means carried by said clamping plate interlocked with said string rest to cause said string rest to move in said channel as said plate is moved.

2. In an adjustable bridge for musical instruments, a main body member formed with a plurality of channels, a string rest in each of said channels, a plurality of clamping plates adjustably mounted on said body member between said channels, screw means associated with each of said clamping plates for holding that clamping plate in an adjusted position, and means on each clamping plate interlocking with one of said string rests.

3. In an adjustable bridge for musical instruments of the character described, a main body member formed with a channel, a string rest comprising an elongated base member and a flange upstanding therefrom intermediate the ends thereof, a clamping plate formed with an elongated slot mounted on said body member at one side of said channel, screw clamping means associated with said clamping plate and being effective through said slot to either permit of adjustment of said clamping plate or to hold said clamping plate in an adjusted position, and a pair of legs carried by said clamping plate and engaging said flange on either side thereof to establish an interlock between said plate and said string rests.

4. In an adjustable bridge for musical instruments, a main body member formed with a plurality of channels, a string rest in each of said channels, each of said string rests including an elongated base and a flange upstanding from said base intermediate the ends thereof, a clamping plate associated with each string rest and carrying legs straddling said flange, each of said clamping plates being adjustably mounted on said body member at one side of one of the channels, and screw means associated with each plate holding that plate in an adjusted position.

5. In an adjustable bridge for musical instruments, a string rest including a base and an upstanding flange, a clamping plate formed with an elongated slot, a pair of legs carried by said clamping plate and having out-turned feet at their lower ends engaging said base on opposite sides of said flange, and screw clamping means associated with said elongated slot.

6. In an adjustable bridge for musical instruments, a main body member, means associated with opposite ends of said body member for adjusting the height of said body member relative to the instrument on which it is mounted, said body member being formed with a channel, a string rest slidably positioned in said channel, a clamping plate adjustably mounted on said body member on one side of said channel, means to hold said clamping plate in an adjusted position, and means carried by said clamping plate interlocked with said string rest to cause said string rest to move in said channel as said plate is moved.

7. In an adjustable bridge for musical instruments, a main body member, means for adjusting the height of said body member relative to the instrument on which the bridge is installed, said body member being formed with a plurality of channels, a string rest in each of said channels, a plurality of clamping plates adjustably

5

mounted on said body member between said channels, screw means associated with each of said clamping plates for holding that clamping plate in an adjusted position, and means on each clamping plate interlocking with one of said string rests.

8. In an adjustable bridge for musical instruments, a main body member formed with a plurality of channels with partitions between the channels and which partitions present crests on the opposite sides of each channel, a string rest in each of said channels, each of said string rests including an elongated base and a flange upstanding from said base intermediate the ends thereof, a clamping plate for each string rest adjustably mounted on one of said crests, each of said clamping plates carrying a pair of legs having feet which straddle the flange of one of said string rests, each of said plates being formed with

6

an elongated slot, the partition on which each clamping plate rests being formed with a bore extending entirely through the body member, a screw stem in each of said bores having a threaded section extending through the slot of one of said clamping plates, and a thumb nut on each of said threaded connections adapted to hold the clamping plate associated with that screw stem in adjusted position.

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