March 26, 1929. J. H. WENDELL 1,707,069

BRIDGE FOR STRINGED MUSICAL INSTRUMENTS

Filed May 20, 1926

FIG. 1

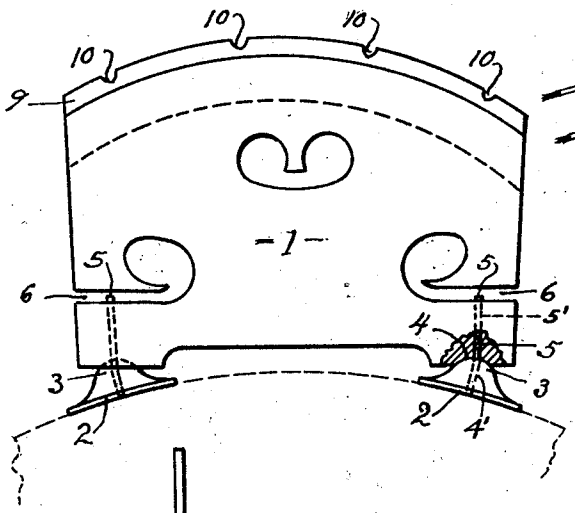


FIG. 2

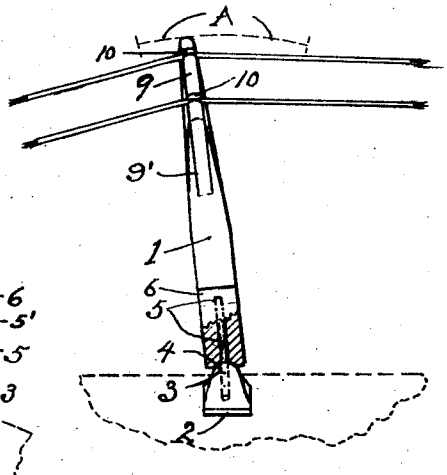


FIG. 3

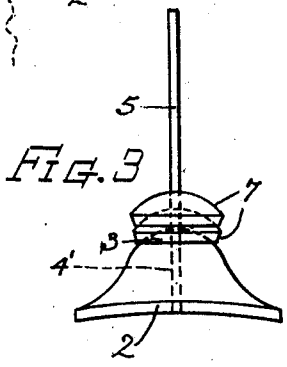


FIG. 4

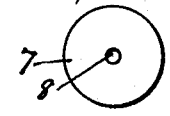
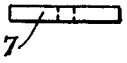


FIG. 5



INVENTOR.
John H. Wendell
BY
H. G. Charles
ATTORNEY.

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UNITED STATES PATENT OFFICE.

JOHN H. WENDELL, OF TOPEKA, KANSAS.

BRIDGE FOR STRINGED MUSICAL INSTRUMENTS.

Application filed May 20, 1926. Serial No. 110,449.

My invention relates to improvements in a bridge for stringed musical instruments.

The objects of my invention are as follows:

First: to provide feet rockably engaging with the bridge to conform to the plate of the violin.

Second: to provide a flexible connecting means for the feet to the bridge.

Third: to provide extensions for raising the bridge from the feet.

Fourth: to provide means to eliminate skilled labor to fit the feet of the bridge to the plate.

Fifth: to provide a bridge having an insert of ebony or other material of similar texture to prevent the strings from cutting to an excess depth into the upper edge of the bridge and the said means adapted to co-act with the feet as prolongation of the endurance of the bridge and that the bridge may be transferred or applied to other stringed instruments wherein the plates may vary in curvature.

These and other objects will hereinafter be more fully explained.

Referring to the drawings; disclosing the improvements of my invention; I have illustrated a typical type of violin bridge in which:

Fig. 1 is a rear elevation of the bridge positioned on the top plate of the violin as shown by dotted lines.

Fig. 2 is an end view of Fig. 1.

Fig. 3 is an enlarged elevation of the bridge foot showing the position of the flexible cord connecting member and the discs as compressed when applied.

Fig. 4 is a plan view of one of the discs.

Fig. 5 is an edge view of Fig. 4.

Inasmuch as I have provided feet rockably carrying the bridge to prolong the endurance, I have likewise provided an insert in the top edge thereof made of ebony or its equivalent as a string bearing element to resist the tension imposed thereon. Therefore the adjustable feet, insert and the means for raising the bridge are the elements eliminating unusual wear, difficult seating of the feet and the proper arch of the strings, all of which I acquire in the following detailed description in which; 1 is a typical design of a violin bridge being supported by feet 2 having a crown on the top thereof as at 3; the said crown having a bearing in the socket 4 positioned in the lower edge of the bridge and near each corner thereof.

Concentrically passing through the foot is an aperture 4'' in which is rigidly attached a flexible cord like member 5, which is preferably made of rawhide, although a short piece of violin string may be employed, the said member engaging in an aperture 5' concentrically starting from the socket and extending upward through the bridge to an opening 6 as shown in Figures 1 and 2. The said cord being flexible is means to allow the feet to rock as required by the shape of the crown plate and the vertical slant desired as shown in Fig. 2. The possible swing of the bridge is indicated by the dotted line A.

The object of the apparent excess length of the cord is that discs 7 having an aperture 8 may be concentrically positioned to engage on the cord 5 for the purpose of raising the bridge so that the strings will clear the rear portion of the finger board; the said discs being flexible will conform to the shape of the crown and the socket when the tension is imposed thereon, and as means for retaining the discs in proper position adhesive substance is applied to one side thereof which is moistened when applied; the adhesive side engaging with the socket, likewise the adjacent disc to the concave side of the first said disc and so on for as many discs as are required for proper elevation. This arrangement allows the crown to rock freely on the bottom disc.

The cord is of sufficient length to engage in the aperture of the bridge snugly as temporary supporting means while the bridge is being properly positioned on the plate of the violin and when the tension is imposed by reason of the strings; the said feet will properly position relative to the curvature of the plate and also engage properly with the socket of the bridge.

In the top edge of the bridge is positioned a member 9 engaging in a slot 9' in said bridge; the said member being arcuated as an economical means conserving the material which is preferably of ebony and rigidly glued in the slot.

On the periphery of the arcuated member is a plurality of notches 10 functioning as seats for the strings of the instrument, the material of said member being of a hard

nature will prevent the strings from cutting downward therein.

Furthermore the adjustable feature of the feet will conform to irregularities occasioned by other ill fitted bridges to the plate of the violin; and should the curvature or crown of the plate vary in time my adjustable feature will conform to such variation without placing irregular strain on the bridgeplate.

It will be understood that the foot members are made of ebony or material of equal texture, the body of the bridge of maple and the insert as heretofore described of ebony, the disc members to be made of flexible material, such as leather or felt or other fibrous material, that will compress solidly, and the cord may be made from a fragmentary part of a string such as used on the instrument but do not confine it to such.

Such modifications may be made as lie within the scope of the appended claims.

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

1. In a bridge for stringed musical instruments having sockets in the lower edge and near the opposite ends thereof, an aperture concentrically starting from said sockets and extending upward into said bridge, feet having crowns to engage in the sockets, and flexible cords laterally extending through the peak of each crown, said cords engaging snugly in said apertures as flexible retaining means for the feet.

2. In a bridge for stringed musical instruments, a bridge member having a socket in the lower edge adjacent each of the corners thereof, foot members having a crown on each thereof to engage in their respective sockets in the bridge, by which means the bridge and foot members may rockably engage, and flexible means to retain the said foot members to the bridge.

3. In a bridge for stringed musical instruments, a bridge member having a socket in the lower edge adjacent each of the corners thereof, foot members having a crown on each thereof to engage in their respective sockets in the bridge, by which means the bridge and foot members may rockably engage, and flexible means to retain the said foot members to the bridge, a plurality of apertured discs as a variable extension means for the foot members from the bridge, said discs being aligned by the flexible means engaging in the apertures thereof.

JOHN H. WENDELL.