



# UNITED STATES PATENT OFFICE.

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## NECK FOR MUSICAL INSTRUMENTS.

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*To all whom it may concern:*

Be it known that I, THADDEUS J. McHUGH, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Necks for Musical Instruments, of which the following is a specification.

This invention relates to improvements in necks for musical instruments.

The main objects of this invention are:

First. To provide an improved neck for stringed instruments, which is so constructed that it is not likely to spring or warp under the strains to which it is subjected in use, and one which should it become warped, may be straightened.

Second. To provide an improved neck for stringed instruments which may be adjusted or sprung to adjust or regulate the distance of the strings from the keyboard.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Fig. I is a front view of a neck portion of a guitar embodying the features of my invention.

Fig. II is a central longitudinal section on a line corresponding to 2—2 of Figs. I and IV, the truss rod being shown in full lines for convenience in illustrating.

Fig. III is an enlarged transverse section on a line corresponding to line 3—3 of Fig. 2.

Fig. IV is an enlarged transverse section on a line corresponding to line 4—4 of Fig. 2.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 represents the body of the instrument, and 2, the neck thereof.

My improved neck comprises a body portion 3 which has a central longitudinal

channel 4 formed in its upper side. The bottom 5 of this channel is upwardly curved.

I arrange a truss rod 6 in the channel, the truss rod being curved to correspond to the bottom of the channel. At the ends of the channel are recesses 7 and 8 adapted to receive the washers and adjusting nuts 9 and 10, the nuts being threaded upon the ends of the truss rod so that it may be tensioned and adjusted.

A filler strip 11 is arranged in the channel over the truss rod, and the finger board 12 covers this.

A removable cover plate 13 is provided for the recess 8. The cover plate may be removed to afford access to the nut 10 for tensioning the truss rod.

By this arrangement of parts, I provide a neck for stringed instruments which is not likely to warp or spring under severe strains, and one which should it become warped or sprung may be readily adjusted to remove the spring, and also to adjust the position of the strings 14 relative to the finger board. The pull of the strings tends to swing the outer end of the neck upward thereby swinging the fingerboard away from the strings. As I have arranged the truss it provides for the adjustment of the neck to bring the fingerboard into proper relation to the keys, that is, the action of the truss is to bow the center of the neck upward.

By this arrangement of parts, I am also enabled to use wood which has not been heretofore considered satisfactory for the manufacture of necks, on account of its not having sufficient strength and rigidity, and further, great care in selecting stock is not necessary.

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

1. A neck for stringed instruments, comprising a body member having a central longitudinal channel in the upper side thereof, the bottom of said channel being upwardly curved, there being recesses at the ends of the channel, a truss rod disposed in said channel and provided with an adjusting nut at one end, and a filler strip secured in said channel above said truss rod, said rod being of such gage and character as to sustain the compression stresses thereon.

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2. A neck for stringed instruments, comprising a body member having a central longitudinal channel in the upper side thereof, the bottom of said channel being upwardly curved, there being recesses at the ends of the channel, a truss rod disposed in said channel and provided with an adjusting nut at one end, said rod being of such gage and character as to sustain the compression stresses thereon.
3. A neck for stringed instruments, comprising a body member having a longitudinal channel in the upper side thereof, a truss rod disposed in said channel and provided with an adjusting nut at one end, and a filler strip secured in said channel above said truss rod, said rod being of such gage and character as to sustain the compression stresses thereon.
4. A neck for stringed instruments having a longitudinal channel therein, the bottom of said channel being curved, a truss rod disposed in said channel and curved to correspond to the curved bottom thereof and provided with adjusting means, and a filler strip disposed in said channel over said truss rod, said rod being of such gage and character as to sustain the compression stresses thereon.
5. A neck for stringed instruments having a longitudinal channel therein, the bottom of said channel being curved, a truss rod disposed in said channel and curved to correspond to the curved bottom thereof and provided with adjusting means, said rod being of such gage and character as to sustain the compression stresses thereon.
6. A neck for stringed musical instruments having a longitudinal channel in the upper side thereof, a truss rod disposed in said channel and provided with adjusting means, and a filler strip disposed in said channel above said truss rod, said rod being of such gage and character as to sustain the compression stresses thereon.
- In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.
- THADDEUS J. McHUGH. [L. s.]
- Witnesses:  
 LUELLA G. GREENFIELD,  
 MARGARET L. GLASGOW.