F. L. TURNER.

NUT FOR MUSICAL INSTRUMENTS.

APPLICATION FILED SEPT. 25, 1918.

1,335,142. Patented Mar. 30, 1920.

Fig. 6.

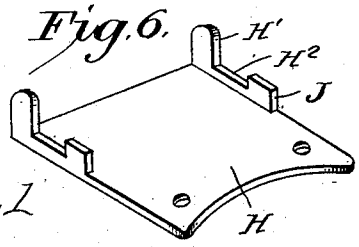


Fig. 1

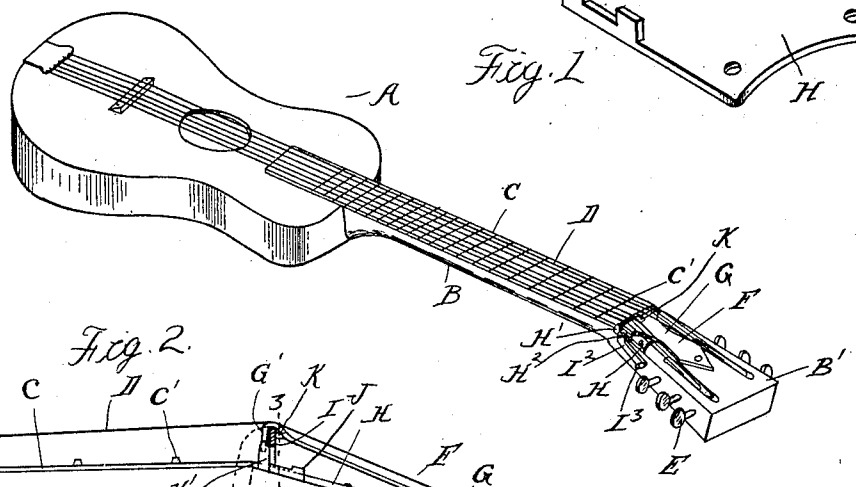


Fig. 2.

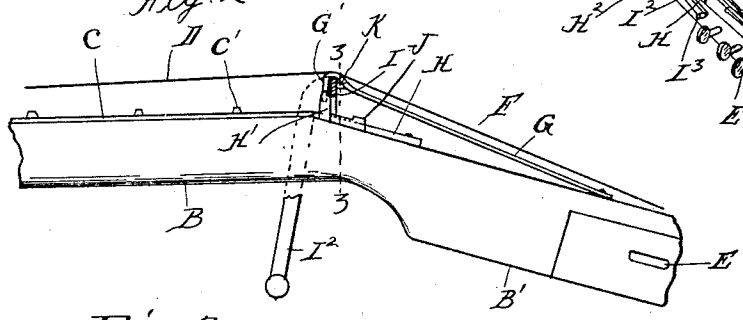
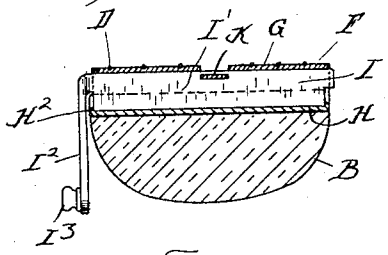


Fig. 3.



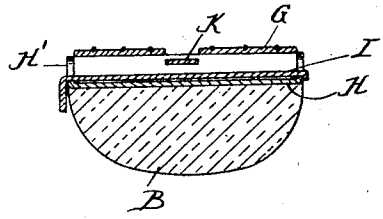
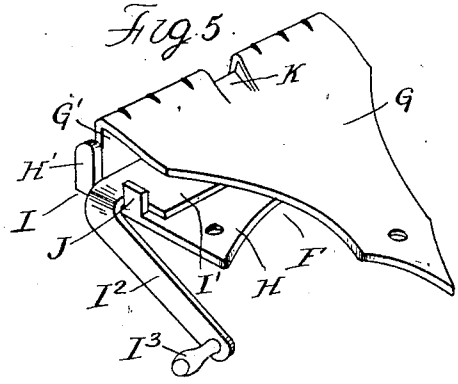


Fig. 4.

Fig. 5.



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NUT FOR MUSICAL INSTRUMENTS.

1,335,142. Specification of Letters Patent. Patented Mar. 30, 1920.

Application filed September 25, 1918. Serial No. 255,589.

To all whom it may concern:

Be it known that I, FRANK L. TURNER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Nuts for Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to nuts for musical instruments and is designed more particularly for use in guitars. In the usual guitar the strings are in proximity to the frets upon the finger board and are adapted to be forced into engagement with the same in playing. In a guitar adapted for playing the Hawaiian style of music the strings are spaced a sufficient distance from the finger board so that they will not be forced into engagement therewith in playing. The object of the invention is to provide means for raising and lowering the strings relative to the finger board so that either style of music can be played upon the same instrument. A further object is to provide a simple construction of adjustable nut which may be substituted for the original nut of the guitar. Other objects of the invention reside in the novel arrangement and combination of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of a guitar to which my invention is applied;

Fig. 2 is a side elevation of a portion of the guitar showing the parts when the strings are in raised position;

Fig. 3 is a cross-section on the line 3—3 of Fig. 2;

Fig. 4 is a similar view showing the parts when the strings are in lowered position;

Fig. 5 is an enlarged perspective view of the nut;

Fig. 6 is an enlarged perspective view of a part of the nut.

A is the guitar having the usual neck B provided with the finger board C and frets C′. The strings D extend over the finger board and frets and are connected to the keys E in the head B′ of the neck. F is the adjustable nut which is substituted for the ordinary nut of the guitar and comprises the plates G and H and the cam member I intermediate these plates each of which is a stamping. The plate G is flexible and has the downturned forward end G′ and suitably spaced notches in its upper surface over which the strings D pass. The rear end of the plate is secured to the head B′. The cam member I comprises the flat main body portion I′, adapted to raise and lower the flexible plate, and the lever portion I^2 which extends adjacent the side of the head B′ and is provided with the knob I^3. The plate H is suitably secured to the head B′ at the end of the finger board C and has the corner lugs or ears H′ for guiding the downturned end G′ of the flexible plate and the side flanges H^2 for engaging the ends of the main body portion I′ of the cam member when the latter is in raised position to prevent movement thereof transversely of the head B′. For preventing movement of the cam member I transversely of the head, when the cam member is in lowered position and lying adjacent to the plate H, the end of the cam member opposite that having the lever portion I^2 is bent downward over the edge of the plate.

For the purpose of preventing movement of the cam member I outward longitudinally of the head B′ when the cam member is in lowered position the upturned ears or lugs J are provided at the sides of the plate H, which contact with the outer edge of the cam member at its ends. For preventing further rotating motion of the cam member after it has raised the strings D, the flexible plate G is provided with the struck-down lug K spaced from the downturned end G′ a distance approximately equal to the thickness of the cam member I. Thus when the cam member is swung into raised position to lie adjacent the downturned end G′ of the flexible plate, its upper edge abuts against the struck-down lug K and is prevented from further rotation in the same direction.

When the ordinary style of guitar music is being played, the cam member I is in lowered position and lies parallel to the plate H so that the flexible plate G is in lowered position and the strings D are in proximity to the frets C′ upon the finger board C. When it is desired to play the Hawaiian style of music, the cam member I is swung into raised position to lie adjacent the downturned end G′ of the flexible plate by swinging the lever portion I^2 downwardly. This raises the flexible plate G and the strings D

so that the latter are a sufficient distance from the frets C′ so that they will not be forced into engagement therewith while playing.

From the above description it will be readily seen that a simple construction of adjustable nut is provided which will raise and lower the strings to permit of playing the two styles of music. Furthermore, tension upon the strings can be lessened after playing the Hawaiian style of music by lowering the strings.

What I claim as my invention is:

1. In a musical instrument, the combination with the head, the finger board and the strings, of means permanently secured to said head beyond the outer end of said finger board for raising and lowering said strings with respect to said finger board, said means adapted to hold the strings from engagement with the finger board when being played in raised position and to permit the string to engage the finger board when being played in lowered position.

2. In a musical instrument, the combination with the neck and the strings, of a nut permanently secured to said neck and adjustable to raise and lower the strings relative to the neck, said nut holding the strings when in raised position out of engagement with the neck while the instrument is being played.

3. In a musical instrument, the combination with the finger board and the strings, of a nut beyond the outer end of said finger board and comprising a vertically movable plate over which said strings pass, and means below said plate for raising and lowering the same.

4. In a musical instrument, the combination with the finger board and the strings, of an adjustable nut, comprising a flexible plate over which said strings pass, a cam member for flexing said plate to raise and lower a portion thereof, and a guide for said plate in its movements.

5. In a musical instrument, the combination with the finger board and the strings, of an adjustable nut, comprising a flexible plate having a downturned end over which said strings pass, a rotatable cam member for raising and lowering said plate, said cam member lying adjacent to said downturned end when the plate is in raised position, and a struck-down lug in said plate for limiting the rotation of said cam member in one direction.

6. In a musical instrument, the combination with the neck having the finger board, and the strings extending thereover, of a flexible plate over which said strings pass, said plate having a downturned end adjacent to the end of the finger board and being secured to said neck at the opposite end, a stationary plate on said neck provided with ears engaging the edges of said downturned flange, a rotatable cam member between said plates, and means for holding said cam member from movement transversely of said stationary plate.

7. In a stringed instrument, a nut substituted for the ordinary nut of the instrument and permanently secured to the neck of the instrument, said nut being adjustable to raise and lower the strings of the instrument and to hold the strings when raised off the neck during playing of the instrument and to permit the strings, when lowered, to contact with the neck during playing.

In testimony whereof I affix my signature.

FRANK L. TURNER.