Nov. 8, 1960 D. S. PORTER 2,959,085

ADJUSTABLE NUT FOR FRETTED STRINGED MUSICAL INSTRUMENTS

Filed June 3, 1959

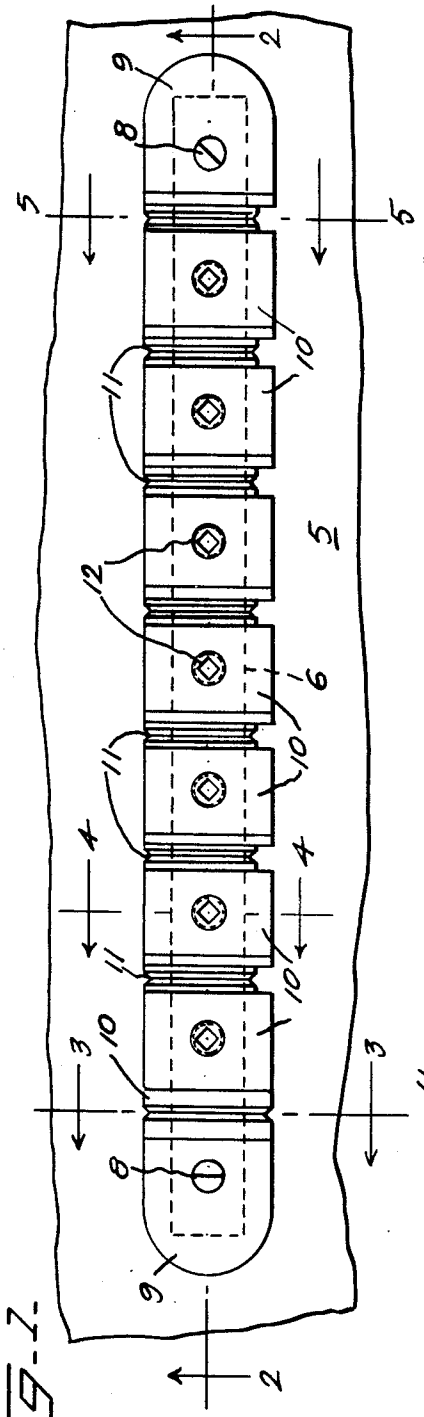


FIG. 1.

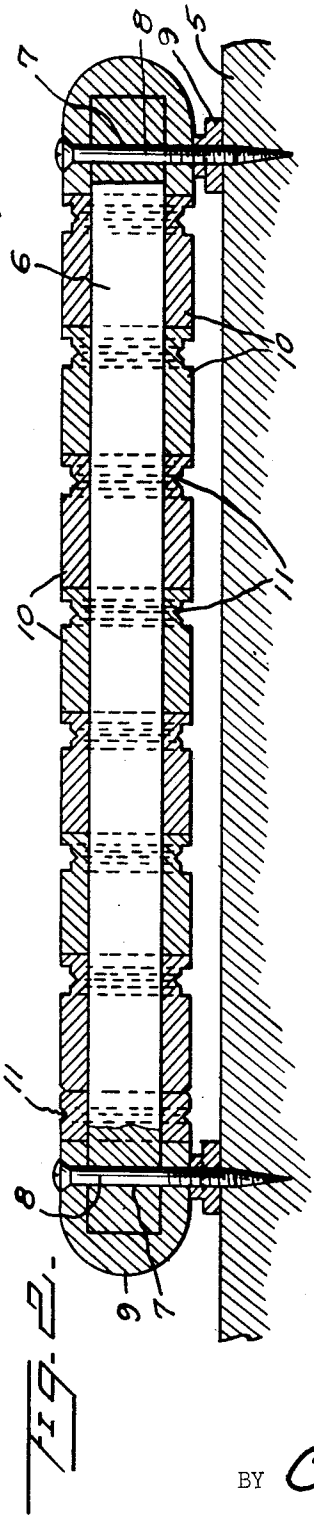


FIG. 2.

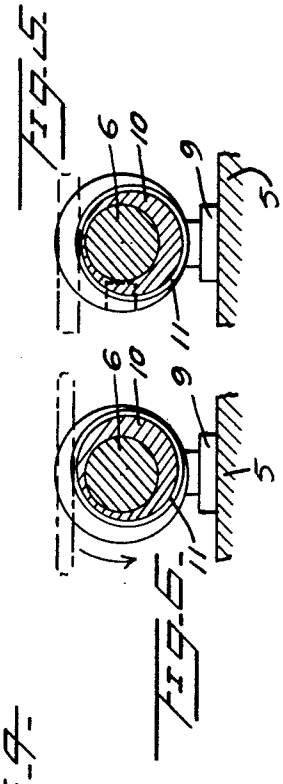


FIG. 5.

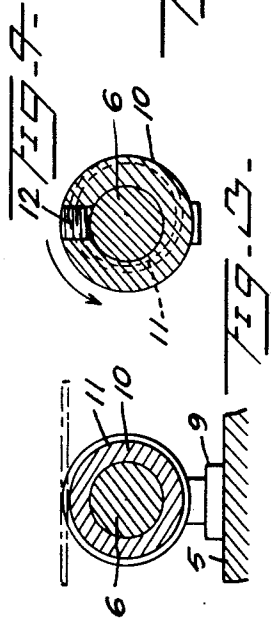


FIG. 4.

FIG. 3.

D. S. PORTER
INVENTOR

BY C. A. Snow & Co.
ATTORNEYS.

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ADJUSTABLE NUT FOR FRETTED STRINGED MUSICAL INSTRUMENTS

Donald S. Porter, 11040 Dodson St., El Monte, Calif.

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3 Claims. (Cl. 84—314)

This invention relates to musical instruments of the stringed type such as guitars, the primary object of the invention being to provide an adjustable nut for an instrument, which is so constructed and arranged that the upper surfaces of the strings, which are of different diameters or thicknesses, will lie in a common plane or in a uniform level, so that the finger or thumb pick or steel, used in playing a steel guitar will contact all of the strings with equal force, in improving the tone effects.

Another object of the invention is to provide an adjustable nut for the various sized strings of a steel guitar so that the strings may be elevated or lowered the desired distances so that the upper surfaces of the strings will be on the same level, thereby permitting interchanging of the various sized strings to meet various requirements of use and still maintain a level of the upper surfaces common to all of the strings.

Still another object of the invention is to provide an adjustable nut designed for steel guitars which may be readily mounted on the instruments, in lieu of the conventional steel guitar nut with grooves arranged for the reception of the various sized strings of a guitar.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is a plan view of a steel guitar nut constructed in accordance with the invention.

Fig. 2 is a longitudinal sectional view through the adjustable nut taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 1.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1.

Fig. 6 is a sectional view through the nut supporting the base E string, which is the string of the instrument largest in diameter, the sectional views being so arranged as to illustrate the common level of the upper surfaces of the various sized strings of a steel guitar.

Referring to the drawing in detail, the reference character 5 indicates a steel guitar on which the nut forming subject matter of the present invention, is mounted, the nut embodying a supporting rod 6, formed with vertical openings 7 adjacent to the ends thereof through which the securing screws 8 are extended, the screws also passing through spacers 9 resting on the steel guitar and passing into the body of the steel guitar, securing the nut in position.

The screws 8 also pass through the spaced caps 9, which are formed with openings into which the ends of the supporting rod 6 extend.

The invention includes independent cylinders 10 which are mounted for rotary movement on the supporting rod 6, the cylinders 10 having their adjacent ends abutting, as clearly shown by Fig. 2 of the drawing. Each cylinder is formed with an annular groove 11, the grooves being eccentrically formed, as shown by the sectional views in Figs. 3, 4, 5 and 6. These grooves are designed to receive the various strings of the steel guitar in the

same manner as the nut used on the conventional steel guitar, and provide means for maintaining the strings in their proper positions on the steel guitar.

Each cylinder is provided with a threaded opening in which a screw 12 is located, the screws 12 being designed to secure the cylinders in their positions of rotary adjustment.

From the foregoing it will be seen that due to the construction shown and described, the cylinders of the nut which support the strings of various diameters of a steel guitar, may be adjusted so that the upper levels of the strings, regardless of their sizes, may be brought to a common level or plane, so that the steel used in playing the steel guitar will contact all of the strings simultaneously, and a pick used in vibrating the strings, may be moved across the strings contacting the strings with equal force, thereby improving the tone effect.

Due to this construction, strings may be interchanged for various requirements of use, that is the base A or large string may be substituted for a small string in the event the strings are interchanged, thereby insuring the desired result and a true tone, in the use of the steel or pick used on the thumb or finger of the player.

In the use of the nut, the steel guitar is strung in the usual way, that is the strings of the guitar are placed in the notches of the nut to properly locate the strings. The cylinders are loosened on the rod and rotated to elevate or lower the strings as necessary so that the upper surfaces of all the strings will be in the identical horizontal plane as described.

Having thus described the invention, what is claimed is:

1. A nut for stringed instruments, comprising a supporting rod, means at the ends of said supporting rod for securing the supporting rod on the instrument, a plurality of substantially short tubular nut elements rotatably mounted on said supporting rod, each nut element having an eccentrically formed groove for supporting a string of the instrument in adjusted relation with respect to the adjacent string of the instrument, and means for securing the individual nut elements in their positions of adjustment.

2. A nut for a stringed instrument such as a steel guitar, comprising a supporting rod, means at the ends of said supporting rod for securing said rod to the instrument, a plurality of substantially short nut elements mounted for rotary adjustment on said supporting rod, the ends of the adjacent tubular nut elements contacting, and said nut elements having eccentric grooves in the peripheries thereof for supporting the strings of the instrument in adjusted relation with respect to each other, and means for securing the individual nut elements in their positions of adjustment.

3. A nut for stringed instruments comprising a supporting rod, bearings in which the ends of said rod are secured, a plurality of individual tubular nut elements mounted on said supporting rod, the adjacent ends of said nut elements contacting in providing a continuous nut, said nut elements having eccentically formed grooves in the peripheries thereof, the grooves being formed adjacent to one of the respective ends of each nut element, said grooves adapted to receive the strings of the stringed instrument, whereby the upper surfaces of said strings lie in the same plane, and means for securing said nut elements in their positions of adjustment.

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