

UNITED STATES PATENT OFFICE.

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STRING INSTRUMENT.

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This invention relates to musical instruments, and more particularly to an improved banjo, or banjo ukulele constructed with an adjustable neck guide to permit the finger board or neck to be adjusted with respect to the body of the instrument whereby the distance between the strings and the frets near the lower end of the neck is adapted to be varied after the instrument has been assembled, so that extreme accuracy is not necessary in regard to the angle of the dowel in connection with the face of the neck.

It is an object of this invention to provide a string instrument wherein the neck is adjustable.

It is also an object of this invention to provide a string instrument wherein one end of the dowel is adjustably supported within the body of the instrument to permit the neck to be adjusted with respect to the plane of the strings.

It is a further object of this invention to provide a banjo, banjo ukulele or similar string instrument wherein an adjustable neck guide may be slightly pivoted with respect to the body of the instrument to vary the distance between the plane of the strings and the finger board of the neck to meet different requirements.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawings.

This invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a top plan view of a string instrument embodying the principles of this invention.

Figure 2 is an enlarged fragmentary side elevation of the instrument with the body portion shown in section, and furthermore illustrating, by means of dotted lines, the operation or adjustment of the neck with respect to the body of the instrument.

Figure 3 is an enlarged fragmentary section taken on line III—III of Figure 2.

Figure 4 is a transverse detail section taken on line IV—IV of Figure 3.

As shown on the drawings:

The reference numeral 1 indicates the body or rim of a banjo, banjo ukulele or similar string instrument embracing a skin head 2, a tail piece 3 and a bridge 4. The above men-

tioned portions of the instrument are assembled in a standard arrangement of parts, as clearly illustrated in the drawing. Connected to the tail piece 3 are a plurality of strings 5 which pass over the bridge 4 and have the outer ends thereof connected with the pegs 6 on a peg head 7. The peg head 7 is integrally formed on the outer end of a neck 8 which is adjustably supported on the body of the instrument, as hereinafter more fully described.

The inner end of the neck is provided with a shoulder 9 having an upper end recess or slot 10 and a lower slot 11. The slots 10 and 11 are provided in the shoulder of the neck to permit the neck to be engaged over projecting flanges formed on the body 1 of the instrument. The neck shoulder 9 is also provided with a recess or pocket 12 in which one end of a dowel 13 is rigidly secured. The dowel 13 projects through an opening 14 in the housing 1 to permit the dowel to be projected diametrically through the interior of the instrument housing. A screw 15 is used for the purpose of securing the lower portions of the neck shoulder 9 to the rim portion of the housing 1. Mounted transversely of the finger board of the neck 8 are a plurality of frets 16.

The important feature of the present invention is the mounting of the second end of the dowel 13. The free end of the dowel 13 projects into a socket or sleeve 17 which is integrally formed on an arcuate metal plate 18 disposed against the inner surface of the instrument housing, wall or rim 1. The plate 18 is provided with a pair of parallel slots 19 through which retaining screws 20 project. The retaining screws 20 are engaged to apertures in the wall of the housing 1 and have engaged on the inner ends thereof retaining nuts 21 and suitable washers 22 and 23. The washers 23 are of the split type to afford a means for locking the nuts 21 in position on the screws 20. With the construction described it will be noted that the dowel 13 may be adjusted with respect to the body of the instrument when the nuts 21 are loosened permitting the slotted plate 18 to be moved upwardly or downwardly with respect to the screws 20. Movement of the outer end of the dowel of course causes adjustment of the neck 8 with respect to the body of the instrument. Lowering of the plate 18 and the dowel 13 acts to raise

the neck 8 and the peg head 7 into the dotted line position shown in Figure 2 thereby increasing the space between the plane of the strings 5 and the plane of the frets 16 on the finger board of the neck 8. After the dowel and neck have been adjusted to obtain the desired distance between the frets and the strings, the plate 18 may be secured in its adjusted position by tightening the nuts 21. Raising of the dowel 13 into the full line position of Figure 2 of course acts to swing the neck 8 downwardly into its full line position, thereby decreasing the distance between the plane of the strings and the plane of the frets on the neck 8.

The purpose of providing the adjustable neck guide is to permit the dowel and neck to be adjusted with respect to the body of the instrument so that the proper distance may be readily obtained between the plane of the frets and the plane of the strings of the instrument. By providing the adjustable neck extreme accuracy is not necessary in the manufacture of the instrument. The adjustability of the neck and dowel with respect to the body of the instrument also permits raising or lowering of the strings of the instrument with respect to the surface of the finger board to satisfy the individual requirements of different players.

While the adjustable neck guide and the adjustable features of the neck and dowel are described and illustrated in connection with a banjo, or banjo ukulele, it will, of course, be understood that the improved features may be associated with any other similar type of string instrument desired.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. A string instrument comprising a body portion, a neck engaged thereon, a tail piece on said body portion, strings connected to said tail piece and to said neck, a skin head on said body portion, a bridge on said skin head for supporting said strings, a dowel having one end thereof rigidly secured to said neck and projecting diametrically through said body portion, and means within said body portion for adjustably supporting the other end of said dowel to per-

mit the neck to be adjusted with respect to said springs.

2. A string instrument comprising a body portion, a neck adjustably engaged thereon, a dowel rigidly secured to said neck and projecting through said body portion, strings connected from said body portion to said neck, and an adjustable support for the dowel within said body portion to permit the dowel and neck to be adjusted with respect to the body portion to vary the distance between the neck and said strings.

3. A string instrument comprising a body portion, a neck movably engaged thereon, a dowel rigidly secured to said neck and projecting into said body portion, and an adjustable means supporting the dowel within said body portion to permit the dowel and neck to be adjusted with respect to the body portion.

4. A string instrument comprising a body portion having an opening therein, a neck mounted thereon, a dowel rigidly secured to said neck and projecting through said opening, an adjustable support for said dowel to permit the dowel and said neck to be adjustable with respect to said body portion, and means for securing the adjustable support in a predetermined position to hold the neck set with respect to the body portion.

5. In a string instrument the combination with a body portion, of a dowel positioned therein with one end of the dowel projecting from the body portion, a neck rigidly secured to the projecting end of said dowel, and an adjustable support for the other end of said dowel to permit the dowel and said neck to be adjusted with respect to said body portion.

6. A string instrument comprising a body portion, a skin head thereon, a tail piece on said body portion, a bridge on said skin head, a neck, strings connected to said tail piece and to said neck engaged over said bridge, a dowel rigidly secured to said neck and projecting into said body portion, a socket for receiving one end of said dowel, and adjustable means for supporting said socket in position to permit the dowel and the neck to be adjusted with respect to said body portion to permit the distance between the plane of the strings and said neck to be varied.

In testimony whereof I have hereunto subscribed my name.

CLARENCE L. DEWEY.