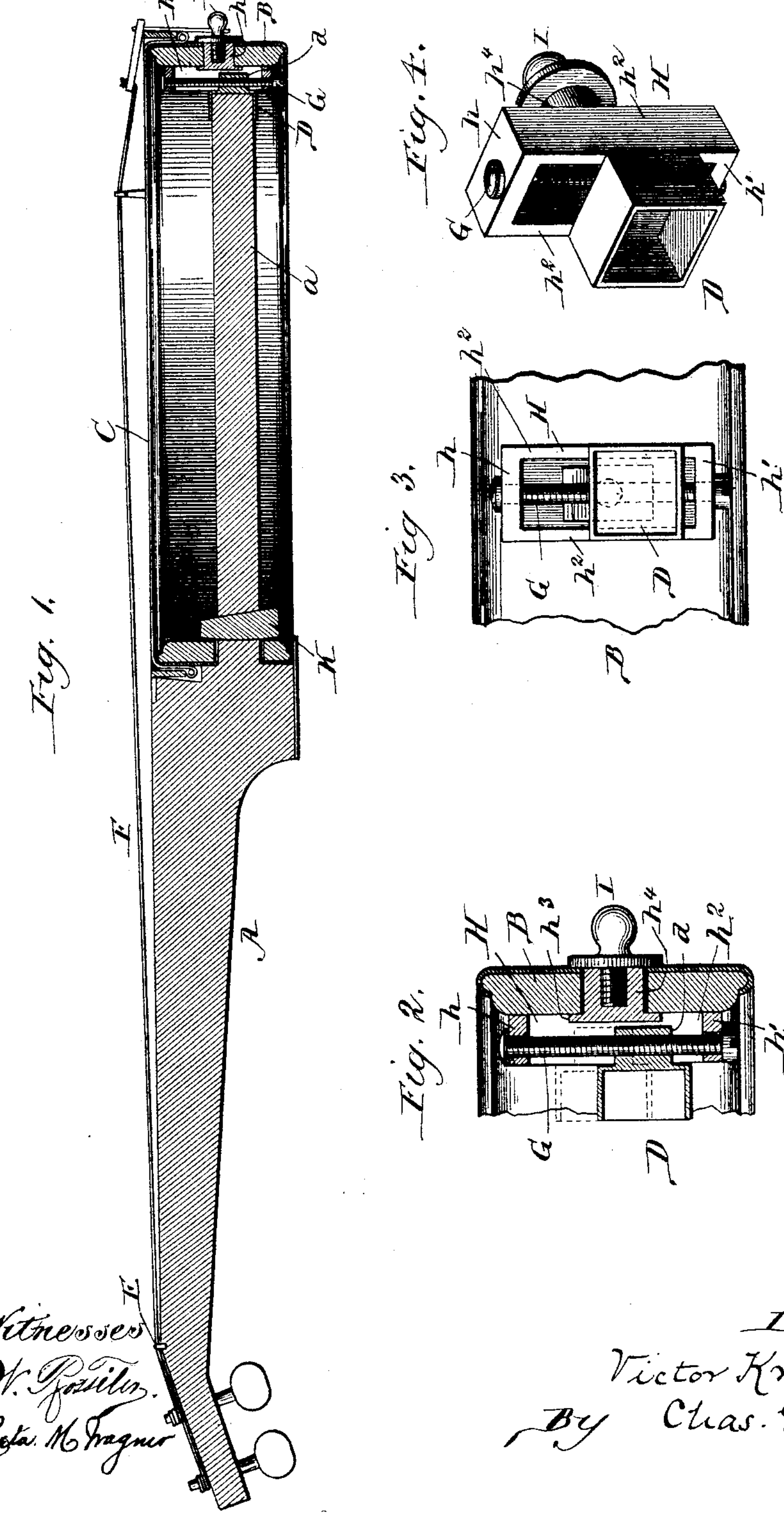
(No Model.)

V. KRASKE.

BANJO.

No. 457,996. Patented Aug. 18, 1891.



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BANJO.

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Application filed January 17, 1891. Serial No. 378,111. (No model.)

To all whom it may concern:

Be it known that I, VICTOR KRASKE, a subject of the Emperor of Germany, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Banjos, of which the following is a specification.

It frequently happens that the neck of a banjo becomes warped to an extent to place the fret-board out of the plane it should occupy relatively to the face of the head, and thereby render it impossible for the player to properly finger and get the best effects from the strings. Thus if the plane of the fret-board becomes depressed or inclined downwardly from the head the space between the strings and frets becomes so small that the strings in vibrating will strike against the frets and thereby produce a rattling sound. On the other hand, should the neck warp so as to incline the fret-board upwardly from the head the distance between the strings and frets will be too great to permit the strings to be quickly and easily depressed and held by the player upon the frets.

The foregoing objectionable relative displacement between the neck and head or body of the instrument is also frequently incident to the putting on of a new head.

My invention relates to means for tilting the neck relatively to the body of the instrument, so as to vary the distance between the fret-board and strings, the more prominent objects and advantages of my improvement being the provision of simple, reliable, and efficient means for attaining the desired adjustment and the further provision of means involving the foregoing and permitting said tilt or tilting adjustment of the neck to be attained with ease and certainty.

To the attainment of these and other useful ends my invention consists in matters hereinafter set forth.

In the accompanying drawings, Figure 1 represents a central longitudinal section through a banjo embodying my invention. Fig. 2 is a detail view representing on a larger scale a portion of Fig. 1. Fig. 3 represents the tail end of the banjo in elevation. Fig. 4 represents in perspective the guide and adjustable socket for the neck arm or stick.

In said drawings, A indicates the neck, B the hoop or body, and C the head, of a banjo. As a preferred arrangement, the neck is provided at its rear or butt end with a stem, rod, or stick *a*, which extends across the space within the head, although, if desired, said rod or stick can be dispensed with, it being here observed that it is common to provide a stem or stick consisting of a metal or wooden rod either secured to or made integral with the neck, although banjos are made and placed upon the market without such appendage. I will first, however, describe my invention in connection with a banjo having a rod or stick *a*, either secured to or made integral with the neck, and then point out ways in which my said invention can be used in connection with a banjo wherein such rod or stick is absent.

The rod or stick *a* herein shown is at the tail end of the banjo, engaged and held by an adjustable slide or bearing D, which is adjustable perpendicularly to the plane occupied by the fret-board, in which way, by adjusting said bearing D, the plane of the fret-board can be varied relatively to the head. Thus by adjusting the bearing D the rod or stick *a* can be operated as the short arm of a lever fulcrumed at or about the point whereat the neck sets against the hoop or body of the instrument, and by reason of the length of the neck and the distance of the "nut" E, whereon the strings rest, from the head a slight adjustment of the neck, and consequently of the fret-board, will produce considerable variation in the extent of space between the fret-board and strings F.

As a means for adjusting the bearing D, I provide an adjusting-screw G, which extends through and engages a threaded bore in the bearing, as best shown in Fig. 2. The bearing is held against turning by a guide H, which is secured to the body of the instrument and also conveniently adapted to provide bearings *h* and *h'* for the upper and lower end portions of the adjusting-screw. Said guide H may, for example, resemble a rectangular frame, whereof the ends provide bearings for the adjusting-screw, while the space between the inner walls of its sides h^2 provides a guide-way for the back portion *d* of the adjustable bearing. One end of the screw is available to a screw-driver or other suitable tool in the hands of the user, or it

can be provided with a handle similar to a thumb-nut. By turning the screw the bearing can be adjusted up and down within the guideway like a slide-nut and will obviously be firmly held in its adjustment.

The guide H can set up against the inner wall of the hoop or body of the instrument, and as a simple mode of holding it in place I unite its two sides at the rear by a cross-piece h^3, and form with or secure to said cross-piece a neck h^4, which fits through an opening in the hoop or body of the banjo and provides a bearing for a clamp-screw I. The clamp-screw is adapted to be set up against the outer side of the hoop or body B, and by tightening it up the said hoop or body can be firmly clamped between the guide H and screw I.

The rod or stick a can be secured to the neck in any known or suitable way, or it can be made integral therewith and provided with an opening or socket for a wedge K, herein arranged to engage in said opening and bind against the inner side of the hoop or body of the banjo.

I have herein shown the slide or bearing D made separate from the stick a mainly for the reason that a wooden stick is preferable. In applying my invention, however, to a banjo having a metal stick the bearing D could of course be made integral with the stick, if so desired, it being understood that, broadly considered, my invention involves as a prominent feature of improvement the rear end of the stick or stem connected with the body of the instrument, but adjustable perpendicular to the plane of the parchment head, in which way said stick serves as the arm of a lever, which can be readily tilted and adjusted in any suitable way, so as to place its rear end nearer to or farther away from the parchment head in accordance with the extent to which the neck is to be tilted independently of the body, and that as a further prominent feature of improvement I tilt the neck by an adjusting-screw arranged perpendicular or substantially perpendicular to the plane of the head and fret-board, thereby attaining sufficient leverage to permit the adjustment to be easily made.

What I claim as my invention is—

1. The combination, substantially as hereinbefore set forth, in a banjo, of the banjo-body, the neck, and a rod or stick extending from the neck back through the space within the body of the instrument and having its rear end, which is connected with the body of the instrument, adjustable in a direction perpendicular to the plane of the parchment head, for the purpose described.

2. The combination, substantially as hereinbefore set forth, in a banjo, of the banjo-body, the neck, and an adjusting-screw applied for tilting the neck independently of the body of the instrument and arranged substantially perpendicular to the plane of the parchment head and fret-board, substantially as set forth.

3. The combination, substantially as hereinbefore set forth, in a banjo, of the banjo-body, the neck, a rod or stick extending from the neck back through the space within the body of the instrument, and an adjusting-screw engaging a threaded bearing on the rod or stick, in order that by operating said screw the neck can be tilted, for the purpose described.

4. The combination, substantially as hereinbefore set forth, in a banjo, of the neck, the rod or stick extending from the neck back through the space within the body of the instrument, an adjusting-screw engaging a threaded bearing on the rod or stick, and a guide for steadying said bearing.

5. The combination, substantially as hereinbefore set forth, in a banjo, of the neck, the rod or stem, a bearing D on the rod or stem, a guide H for the bearing, and an adjusting-screw engaging the bearing.

6. The combination, substantially as hereinbefore set forth, in a banjo, of the neck, the rod or stem extending back from the neck, a bearing D on the rod or stem, a guide H for the bearing, an adjusting-screw engaging the bearing, a neck h^4, extending from the guide through the body of the instrument, and a screw for engaging in the neck h^4, for the purpose described.

7. The combination of the banjo-body, the neck, the rod or stem extending back from the neck and adjustably held at the tail end of the banjo, and a wedge fitted within an opening in the rod or stem at a point to permit it to bind against the inner side of the banjo-body adjacent to the point whereat the rod or stem passes through the same.

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