

(No Model.)

W. TITUS.
BANJO.

No. 447,985.

Patented Mar. 10, 1891.

Fig. 1.

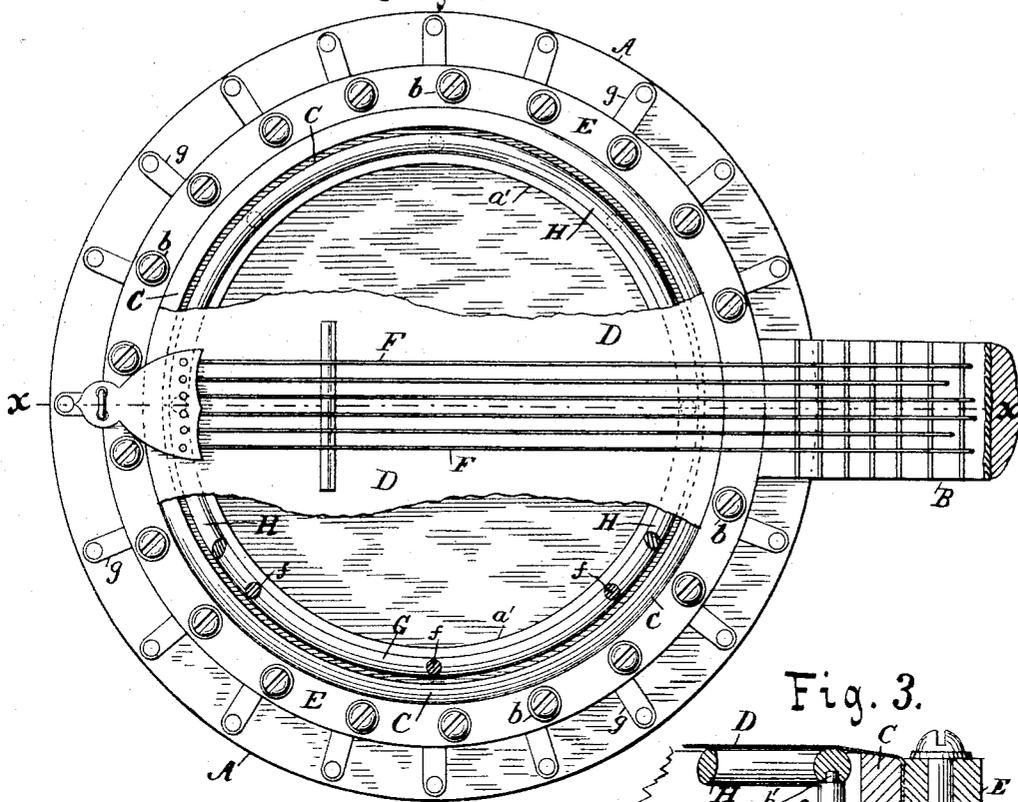


Fig. 2.

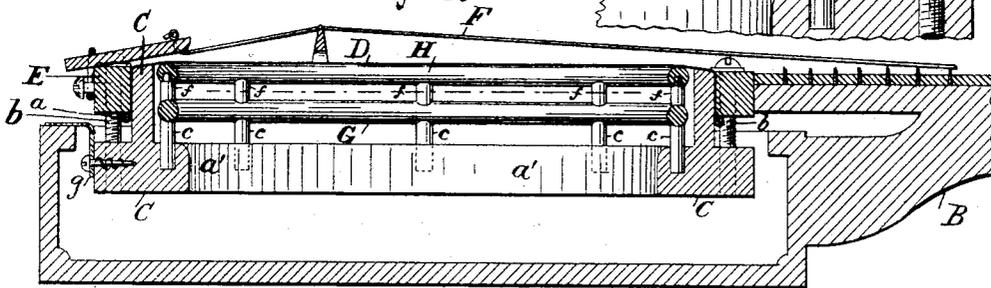
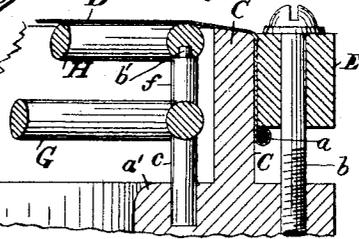


Fig. 3.



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BANJO.

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Application filed April 23, 1889. Serial No. 308,329. (No model.)

To all whom it may concern:

Beit known that I, WILLIAM TITUS, of North Hempstead, in the county of Queens and State of New York, have invented certain new and useful Improvements in Banjos; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a new resonant quality to banjos, whereby the clearness, loudness, and distinctness of the tone of the instrument is materially increased, and whereby the musical range of the instrument is greatly increased.

Said invention comprises certain novel combinations of parts hereinafter fully set forth and described.

Figure 1 is a plan or top view of a banjo provided with my improvements, but with a portion of the parchment head removed the better to show the internal arrangement of the parts. Fig. 2 is a central transverse sectional view further illustrating my said invention, taken in the line *x x* of Fig. 1; and Fig. 3 is a detail transverse sectional view on a larger scale.

A is the external shell of the banjo, provided with the usual staff or finger-board B, which latter may be of the usual length and character, and therefore not represented in full in the drawings.

C is a ring, over which, as herein presently described, the parchment is strained, and which for convenience I designate as the "parchment-bearing ring."

D is the parchment head, having at its periphery a ring *a*, against which bears the tightening-ring E, which is brought downward with reference to the ring C by means of screws *b*, thereby straining the parchment or head to the requisite tension. The banjo is provided with the usual strings F, extended across and in due relation to the parchment head D in the usual or in any suitable manner. The parts A to F and *a* to *b*, inclusive, may be in themselves and in their relation to each other those of a common banjo—as, for example, those of the well-known Dobson banjo. The ring C is attached to the external

shell A by metallic strips or brackets *g* in a manner well understood in the art.

Placed around that portion of the ring C adjacent to the parchment D is a series of fixed pins *c*, which are preferably of steel and inserted in the flange *a'* of said ring C. The upper ends of these pins *c* are so shaped as to receive and support a resonant ring G, which may be formed of a suitable steel wire bent to the requisite circular form. Above and at some little distance from this ring G is another ring H, separated therefrom by interposed metallic studs *f*, the lower ends of which are fitted upon the ring G, while the upper ends, for greater security in retaining said studs in place, may be formed with small tongues *b'*, which fit into corresponding holes formed in the ring H. The ring G has its outer circumference at an appreciable distance from the inner wall or circumference of the ring C. This is also true of the ring H. The ring H, moreover, has its upper circumference extended above the line or level of the upper edge of the ring C, so that when the parchment D is strained to the requisite tension the said parchment will be strained upon the upper side of the ring H, as illustrated more fully in Figs. 2 and 3, the result of which is that the vibrations of the parchment when the instrument is in use are substantially circumscribed by its line of contact with the ring H, and to that extent to the circumference of the ring C, where the circumference of the parchment is attached thereto. By this arrangement of a metallic ring H within the ring C at an appreciable distance from the inner circumference of the wall thereof and with its upper edge above or beyond the line or level of the upper edge of the ring C the vibrations of the parchment in the use and operation of the instrument are rendered much more effective for the purposes for which the parchment is employed in this class of instruments. Inasmuch as the ring G is of resonant metal and is supported in such a manner that its resonance is practically uninterfered with when subjected to vibratory action, the resonance of the parchment-bearing ring C is added to the audible results produced by the action of

the strings F and of the head or parchment D, either or both, as the case may be, and the sound of the instrument and its musical range and tone are greatly enhanced. The studs *c*,
 5 inserted in the flange *a'*, afford a convenient and effective means of supporting the ring G, and the studs *f*, arranged as described, enable the rings G and H and the studs *c* to co-
 10 operate in such manner that the rings are mutually sustained and held in position.

It is of course to be understood that the banjo proper, apart from the features which constitute my invention, may be of any suitable kind or character and that the details of
 15 carrying out the several features of my said invention may be modified within wide limits, so long as the essential character thereof is retained.

When desired, more than one resonant ring
 20 G may be employed. In such case the resonant rings are separated from each other by the requisite number of additional series of studs corresponding to the studs *f*. Of course in such case there is secured a greater
 25 volume of resonance, due to the increase in quantity of the resonant material so applied in connection with the parchment head and the strings as to vibrate in response thereto.

What I claim as my invention is—

1. The combination, with the strings, parchment head, and parchment-bearing ring of a banjo, of a resonant ring G and studs *c*, carried by the inner flange *a'* of the parchment-bearing ring C, substantially as and for
 30 the purpose herein set forth. 35

2. The combination, with the strings, parchment head, and parchment-bearing ring of a banjo, of the resonant ring G, the ring H, having its upper edge extended beyond the adjacent upper edge of the parchment-bearing ring, the studs *f*, interposed between the
 40 resonant ring G and the ring H, and the studs *c*, carried by the bearing-ring C, substantially as and for the purpose herein set forth.

3. The combination, with the strings, parchment head, and parchment-bearing ring of a banjo, of the resonant ring G, the ring H, having its upper edge extended beyond the adjacent upper edge of the parchment-bearing ring, the studs *f*, interposed between the
 50 resonant ring G and the ring H, and the studs *c*, inserted in the flange *a'* of the said parchment-bearing ring, substantially as and for the purpose herein set forth.

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Witnesses:

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