

J. N. GLADDING.

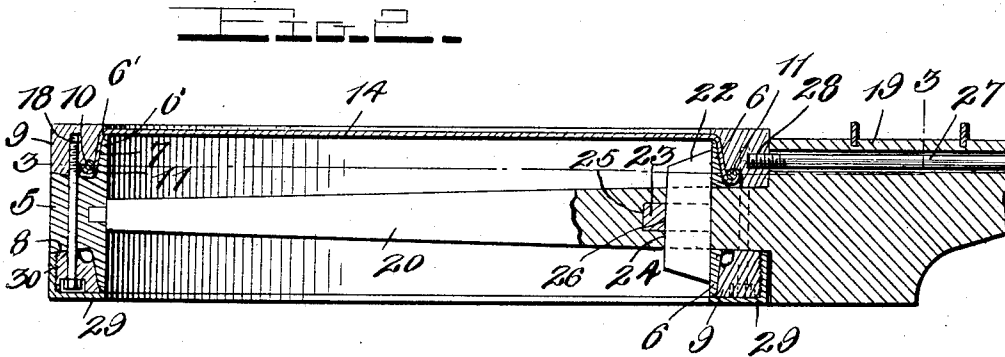
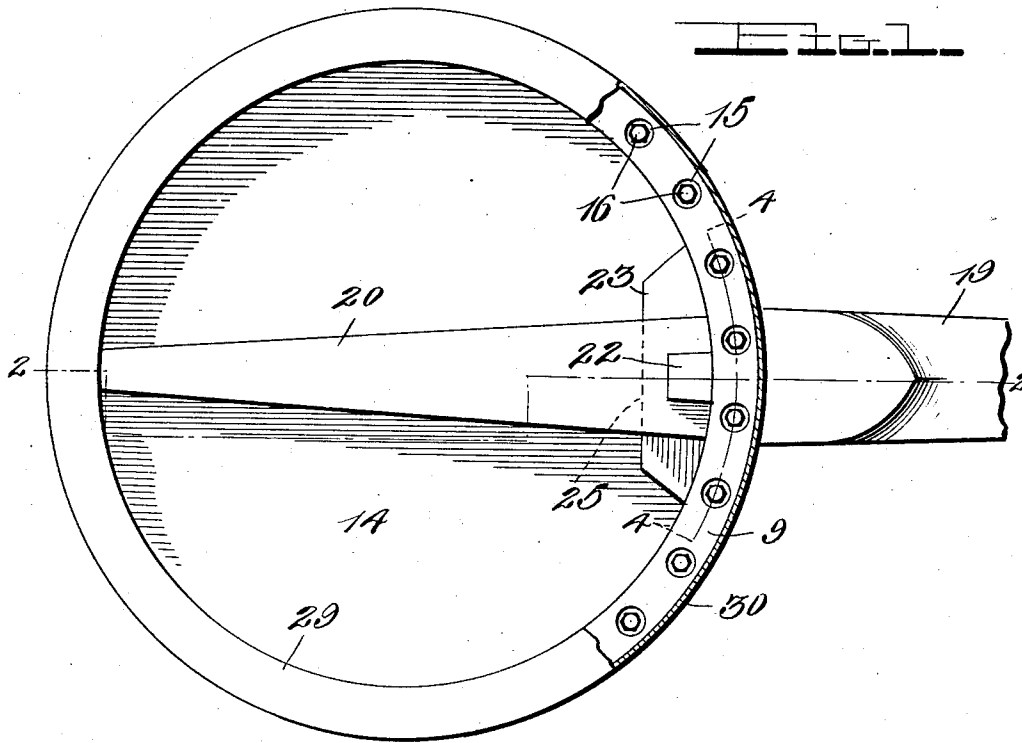
BANJO.

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2 SHEETS—SHEET 1.



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BANJO.

**1,046,770.**

2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

JAMES N. GLADDING, OF MOUNT KISCO, NEW YORK.

BANJO.

1,046,770.

Specification of Letters Patent.

Patented Dec. 10, 1912.

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*To all whom it may concern:*

Be it known that I, JAMES N. GLADDING, a citizen of the United States, residing at Mount Kisco, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Banjos, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in stringed musical instruments and more particularly to a banjo, the invention having for its primary object the provision of means for easily and quickly securing the vellum head of the instrument to the body thereof.

Another object of the invention resides in the provision of a banjo consisting of a rim, upper and lower body rings arranged upon said rim, and means for clamping said rings upon the rim and tightening the vellum head upon the body.

A further object of the invention is to provide an instrument of the above character having a body made up of a plurality of sections, means for clamping said sections together, and means covering said clamping means whereby the opposite faces of the body present smooth unbroken surfaces.

A still further object of the invention is to provide a body construction for instruments of the above character which is simple, durable and inexpensive and which materially increases the quality and volume of the tone and also increases the attractive appearance of the instrument as a whole.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a bottom plan view of a banjo embodying my improvements, the plate covering the adjusting screws and the neck being partly broken away; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a section taken on the line 3—3 of Fig. 2; Fig. 4 is a section taken on the line 4—4 of Fig. 1; and Fig. 5 is a detail fragmentary perspective view of the body rim.

Referring in detail to the drawings, 5 designates the rim which constitutes the primary element of the body of the instrument. This rim is circular in form and is provided at its inner edge and upon opposite sides with the upwardly and downwardly extend-

ing annular flanges 6 which are integrally formed therewith. The outer faces of these flanges are beveled or inclined as indicated at 7, and the upper and lower surfaces are also beveled or inclined outwardly from the flanges 7, and with relation to the longitudinal axis of the instrument body as indicated at 8. Upon the rim 5 and engaging with these beveled surfaces 7 and 8, the annular rings or hoops 9 are arranged. These rings are of similar form and are adapted for interchangeable arrangement upon the opposite faces of the body rim. At the inner corners of the rings 9 which are opposed to the corners formed by the meeting inclined or beveled surfaces 7 and 8 of the rim, said rings are provided with the annular grooves or channels 10 for the reception of a metallic clamping ring 11 which is split as indicated at 12, the opposed ends of the ring being beveled, one of said ends carrying the fastening screws 13 whereby the ends of the ring are connected. Upon this ring the vellum head 14 of the instrument is secured at its edges. The ring 11 is clamped between the rim 5 and the annular member 9 of the body when the parts are assembled in the manner which will now be described.

One of the annular members 9 is provided with a plurality of circular recesses 15 in one of its faces, said recesses being arranged in spaced relation. These recesses receive the heads of the clamping screws 16, said heads being of octagonal form to be received in the socket of the usual instrument key. The clamping screws 16 are disposed loosely through transverse openings in the ring 9 which is provided with the recesses 15 and also through similar openings 17 which are provided in the rim 5 and are alined with the openings in the body rim. The other of the body rings or hoops which is arranged upon the opposite side of the rim 5 has formed therein the spaced screw threaded sockets 18 which are adapted to receive the threaded ends of the clamping or adjusting screws 16.

The usual neck 19 is provided over which the strings of the instrument extend, said strings being secured to the head of the neck and to the body of the instrument. As the means for attaching these strings forms no part of the present invention, they are not therefore shown in detail in the drawings nor will they be so described in this specification. I provide the neck 19 at its point of

engagement with the body of the instrument with a longitudinal extension 20 which is tapered or gradually reduced in cross sectional area to its extremity. The extension 20 of the neck is of rectangular form and the rim 5 of the body is provided with a similarly shaped opening 21 to receive said extension, this opening being of a depth equal to the thickness of the body portion of the rim 5, so that only the flanges 6 of the rim extend above and below said opening. The extension 20 adjacent its point of connection to the neck 19 is of substantially the same area in cross section as the rim body, and as the opposite surfaces of the extension 20 are beveled, they provide a continuous unbroken surface upon which the annular members 9 are seated, said inclined faces of the extension 20 lying in the same plane as the inclined horizontal surfaces of the rim body. The extension 20 of the neck is also provided with openings 17' in line with the openings 17 in the rim which receive clamping screws.

As heretofore observed, the invention has for a secondary object, the provision of means for securely clamping together the elements of the sectional body and the provision of means to render such clamping means invisible, whereby the attractive appearance of the instrument is preserved. This latter means consists of an annular plate 29 which is formed with a flange 30, said flange being provided with interior screw threads for engagement with threads provided upon the exterior peripheral surface of the body ring 9 which is provided with the bolt head receiving recesses 15. The outer face of the flange 30 of this covering plate 29 when said plate has been threaded upon the ring lies in the same plane with the outer periphery of the other of the body rings 9 when the parts are assembled, the first named ring being of less width than the latter. When the parts of the instrument body have been assembled and clamped together and the covering ring 29 engaged upon the body ring 9, it will be readily seen that the clamping bolts are entirely hidden from view and that there are no protuberances or projections extending from the faces of said rings as are commonly seen in similar instruments as heretofore constructed. These projections catch upon and tear the clothing and mar the surfaces with which they contact. It will therefore be seen that this latter feature of my invention is an important one.

The various parts of my improved instrument body are assembled in the following manner. The metallic ring 11 to which the edge of the vellum head is attached is drawn together at its ends and secured, said ring being then disposed in the annular groove or channel 10 of the body ring 9. This body

ring is positioned upon one face of the rim 5 in engagement with the inclined surfaces thereof as previously disclosed and in so disposing said ring, the vellum head is disposed over the edge of the flange 6 of the ring which is rounded or convex or indicated at 6' so that the sheet of vellum will lie smoothly thereover. The other of the body rings 9 is then arranged upon the opposite side of the rim 5, and the clamping screws 16 are inserted through the openings therein and through the aligned openings in the rim and are threaded into the sockets 18 in the first named ring. As these bolts are turned, the rings 9 are drawn into close engagement upon the opposite faces of the rim 5 and tightly clamped thereagainst. As the ring 9 which engages the head of the instrument is drawn into position, said vellum sheet which forms the head is tightened on the body whereby tones having the desired musical qualities may be produced. After the covering plate 29 has been threaded upon the body ring 9, the instrument is in condition for use.

It will be observed from the foregoing description that the body rings 9 as well as the neck-piece are reversible, or in other words, the positions of the rings 9 on opposite faces of the rim 5 may be changed when it is desired to adjust the screws 16 from the upper surface of the body.

By the provision of my improved clamping means, the inner and outer surfaces of the rim 5 and the annular members 9 of the body, respectively, are perfectly plain and may be suitably carved if desired.

From the foregoing it is believed that the construction and manner of assembling my improved instrument will be readily understood. The parts may be easily and quickly put together and rigidly secured against movement whereby an instrument is obtained which is light and therefore easily handled, and at the same time extremely durable in construction. The tone, quality and volume of an instrument constructed in accordance with the present invention is also much improved over the common construction of such instruments. Owing to the simplicity of my improved construction it will also be obvious that the instrument can be manufactured at a comparatively small cost.

While I have shown and described the preferred form and arrangement of the various parts, it will be understood that the device is susceptible of considerable modification without departing from the essential features or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. A banjo comprising a body consisting of a rim and interchangeable head-securing members arranged upon opposite faces of

the rim, a flexible head arranged on the rim and a plurality of clamping elements extending through the rim and engaging said members to rigidly clamp the same together  
5 and tighten the head upon the body.

2. A banjo comprising a body consisting of a rim and interchangeable members arranged upon opposite faces of the rim, a flexible head, securing means therefor arranged between one of said members and the rim, the outer edges of said rim and members being flush, and a plurality of clamping elements extending through the rim and engaging said members to rigidly clamp the same together and tighten the flexible head upon the body.  
15

3. A banjo comprising a body consisting of an annular rim having oppositely extending flanges formed upon its inner edge, annular members arranged upon opposite faces of said rim and engaging the flanges thereof, a flexible head, means for retaining said head upon the body disposed between one of said annular members and said rim at the base of one of said flanges, and adjusting devices disposed through the rim and engaging said members to tighten the flexible head upon the body.  
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4. A banjo comprising a body consisting of an annular rim having flanges formed upon opposite faces at the inner edge thereof, an annular member adapted to be arranged upon either face of said rim, said member being of rectangular form in cross section and having an annular groove in one edge thereof, a flexible head, a relatively rigid member secured in the edge of said head and arranged in the groove of said annular member, and means for clamping said member upon the face and against the flange of said rim to tighten the head upon the body.  
30 35 40

5. A banjo comprising a body consisting of an annular rim having flanges formed upon opposite faces at the inner edge thereof, annular interchangeable members arranged upon the faces of said rim and each provided with an annular groove in its rim-engaging face and at the inner edge thereof, a flexible head extending between one of the flanges on the rim and one of said members, a split metallic ring secured to the edge of said flexible head and seated in the annular groove of said member, and means for clamping said members upon the rim to tighten the head on the body.  
45 50 55

6. A banjo comprising a body consisting of an annular rim having flanges formed upon opposite faces at the inner edge there-

of, annular interchangeable members arranged upon the faces of said rim and each provided with an annular groove in its rim-engaging face and at the inner edge thereof, a flexible head extending between one of the flanges on the rim and one of said members, a split metallic ring secured to the edge of said flexible head, means for fastening the ends of said ring together, said ring being received in the annular groove of said member, and means for clamping said members upon the rim to tighten the head upon the body.  
60 65 70

7. A banjo comprising a body consisting of a rim, a head arranged thereon, head-retaining members interchangeably disposed upon opposite faces of said rim, a plurality of clamping screws extending through the rim and engaging said members to rigidly secure the members upon the rim, and a covering plate removably engaged with one of said members to cover the clamping screws and render the same invisible.  
75 80

8. A banjo comprising a body consisting of an annular rim, a head arranged thereon, annular head-retaining members interchangeably engaged upon opposite faces of the rim, one of said members being provided with exterior screw threads, clamping screws extending through the rim and engaging said members to rigidly clamp the same upon the rim, and a covering plate having an annular interiorly threaded flange for engagement with the threads of said member, said rim covering the heads of the clamping screws to render the same invisible.  
85 90 95

9. A banjo comprising a body consisting of an annular rim, a head arranged thereon, head retaining members interchangeably arranged upon opposite faces of the rim, one of said members being provided in one face with a plurality of spaced recesses and having its outer periphery threaded, clamping screws extending through the rim and engaging said retaining members, the heads of said screws being disposed in said recesses, and a covering plate having an annular interiorly threaded flange for engagement with the threads of said retaining member, said plate lying closely upon the recessed face of said member and covering the heads of said clamping screws to render the same invisible.  
100 105 110

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JAMES N. GLADDING.

Witnesses:

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ELLA F. BUCKLEY.