

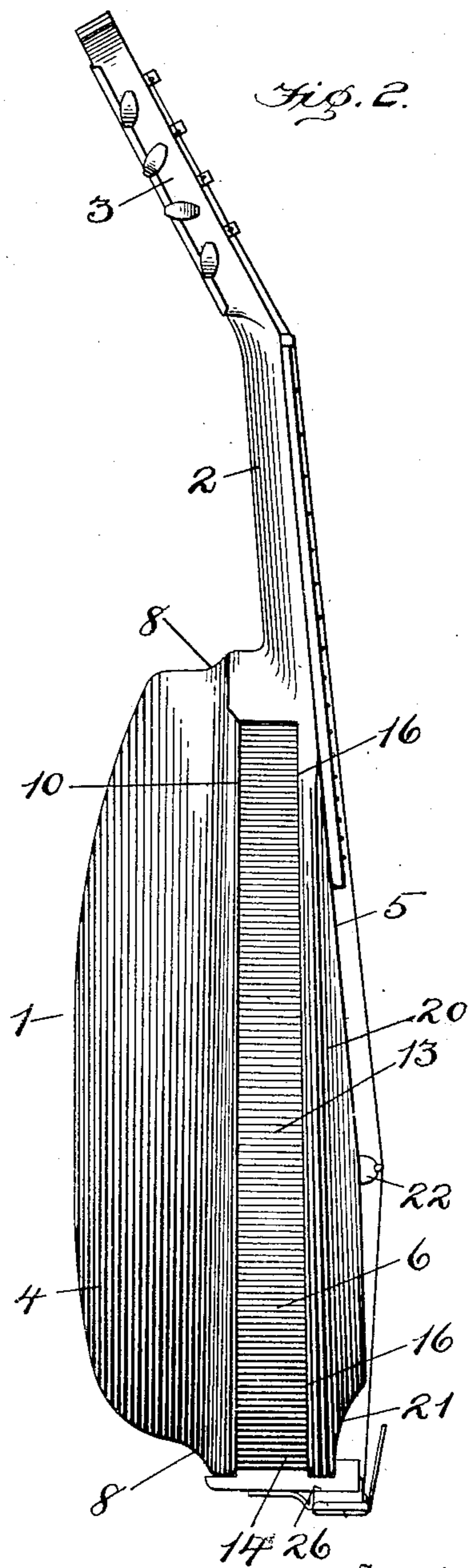
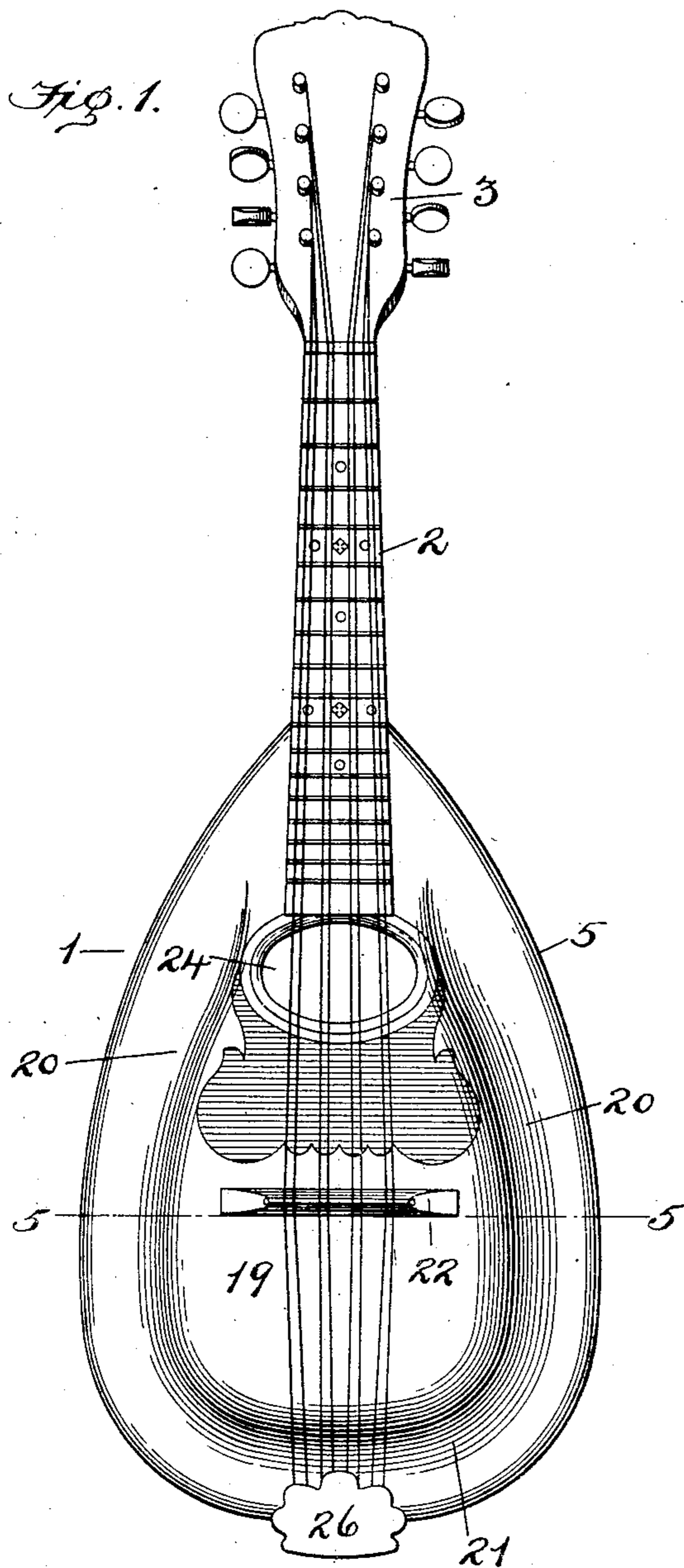
No. 860,350.

PATENTED JULY 16, 1907.

W. C. CLOPTON.
MANDOLIN.

APPLICATION FILED JAN. 31, 1907.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

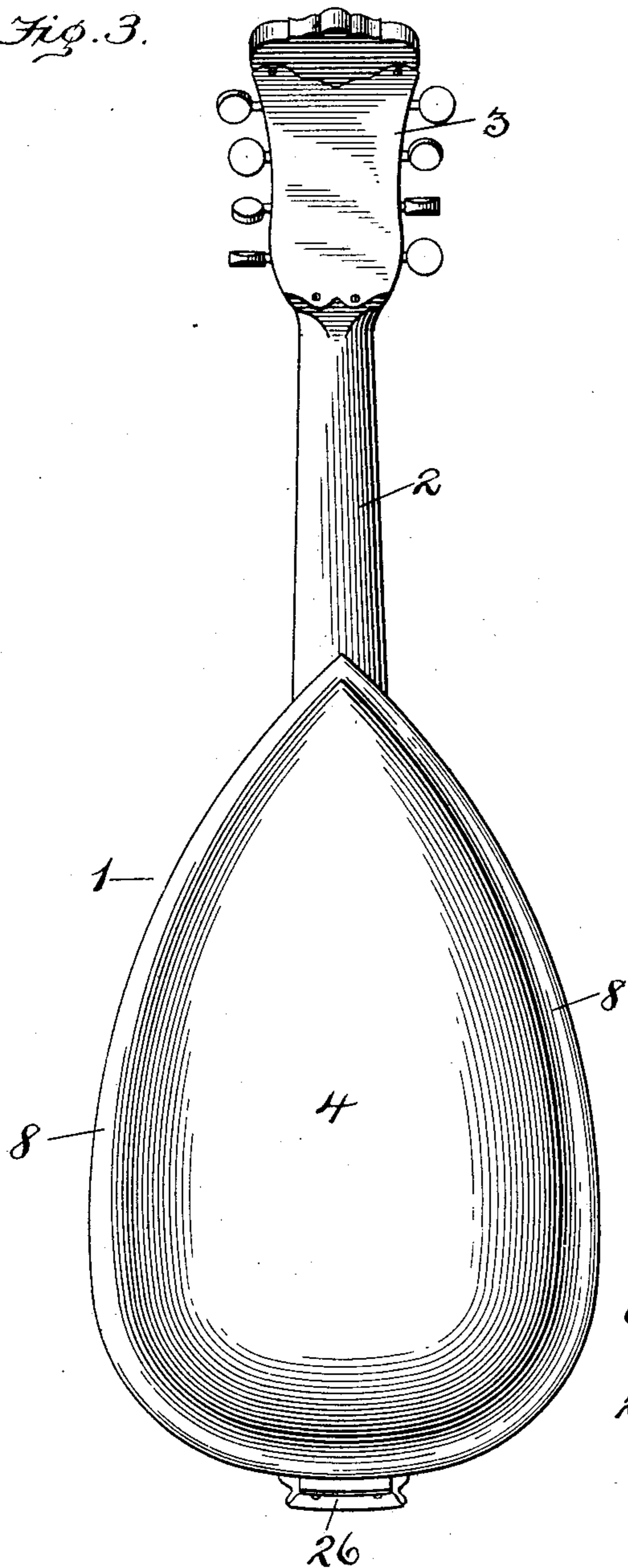


Fig. 4.

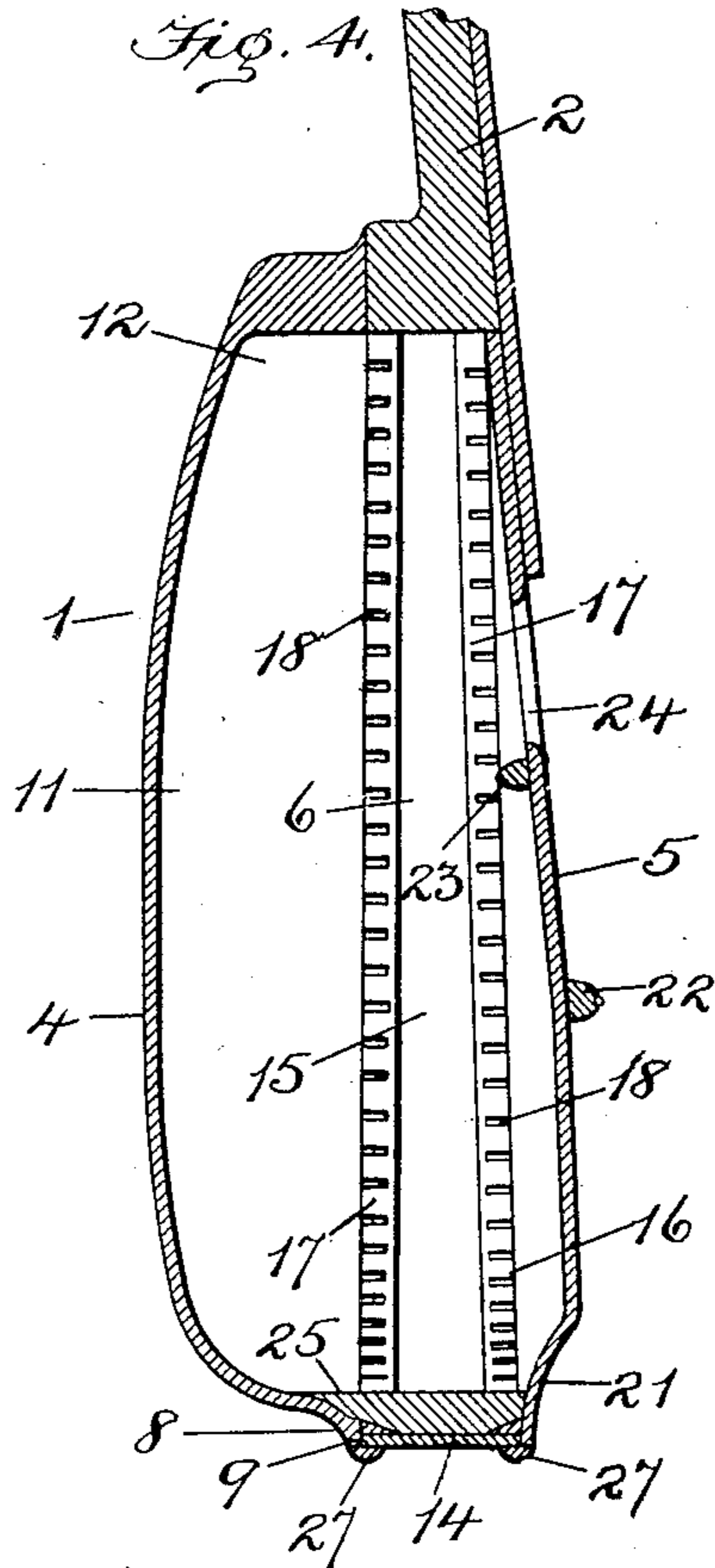
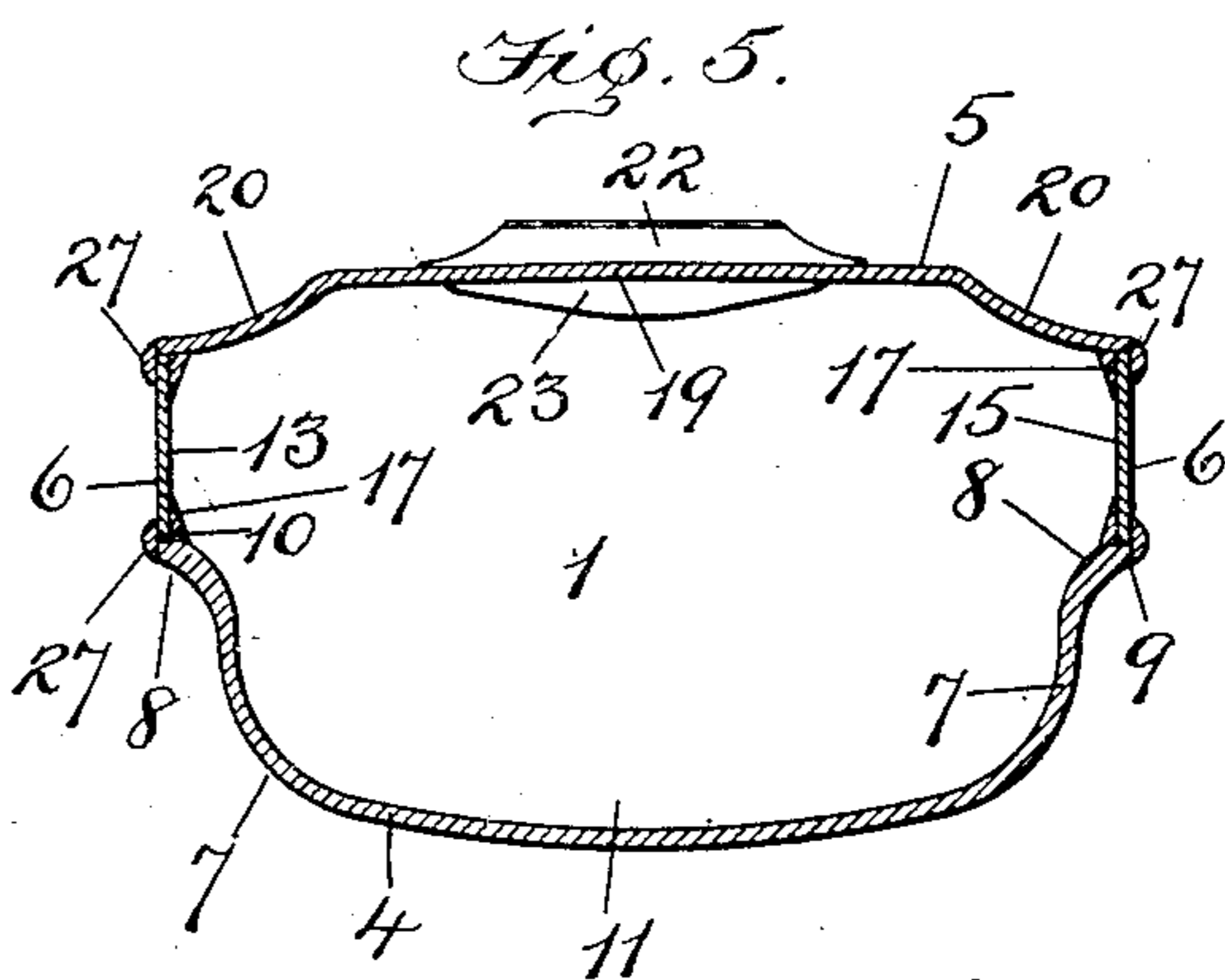


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM C. CLOPTON, OF FARGO, NORTH DAKOTA.

MANDOLIN.

No. 860,350.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed January 31, 1907. Serial No. 354,966.

To all whom it may concern:

Be it known that I, WILLIAM C. CLOPTON, a citizen of the United States, residing at Fargo, in the county of Cass and State of North Dakota, have invented
5 certain new and useful Improvements in Mandolins, of which the following is a specification.

The object of the invention is to produce an improved solo mandolin of sufficient power, sustained tone and carrying quality to fill the largest music hall.

10 The invention relates to the novel construction of the body as specifically set forth and claimed in the following description; the form of the head and neck being incidental in their construction to the lines and harmony of the body.

15 The drawings accompanying this specification illustrate the invention, to wit,—Figure 1 presents a face view of an instrument constructed in accordance with my invention. Fig. 2 presents a side elevation, and Fig. 3 a back view thereof. Fig. 4 presents a longitudinal section cut along the central line of the body of
20 the instrument, and Fig. 5 a transverse section thereof, the section being taken on the line 5—5 of Fig. 1.

Referring to the drawings by numerals, 1 designates the body, 2 the neck, and 3 the head of the instrument.
25 The head and neck are formed from a single piece of wood. The head may be varied, more or less, in its construction according to taste or fancy, and no particular shape thereof forms any essential part of the present invention. The neck is grafted into the
30 body of the instrument, and its butt end is cut down evenly with the wall, and forms part and parcel of the inner chamber wall at the neck end of the instrument. The shape of the neck may vary. The body consists of a hollow dug out back, 4, a hollow dug out table or
35 top, 5, and a continuous strip or rib, 6, interposed between said table and back, all said parts being united together with the neck, and reinforced in such a manner as to solidify the instrument as a whole and sustain its vibratory and tonal action. These parts are all
40 constructed of wood.

To secure volume and depth of tone the back is formed of a single block of hard wood of considerable depth, and dug or scooped out forming a cavity, 11, like the hold of a vessel with the point end, 12, adjacent
45 the neck of the instrument, leaving a large air cavity in the instrument surrounded by walls more or less graduated in thickness according to the needs of vibratory action and the external curves and form of the back. The walls of the back have two distinct cross-sectional
50 curves, one of which is convex, and more or less abrupt, extending upwardly at 7, and the other concave extending outwardly and merging into a flange at 8, forming a ledge, 9, adjacent to the rib 6 and on which the lower edge, 10, of the rib rests. See Fig. 5.

The table or top through which the body of the instrument receives its vibration, as well as the character or quality of tone it emits, is modeled from a solid piece of wood. Its central portion is an elevated plane which is highest near the butt end of the instrument, from which point it gradually slopes forward
60 down to the neck end under the finger board where it is lowest. This central plane rounds downward at every point (see, 20 and 21 Figs. 2—4 and 5) and merges over from the neck end on both its sides, to and around the butt end, into a broad concave band, which terminates in a flange at its edges almost an inch below
65 the plane, similar to that of the back. The top thus modeled is scooped out on the inner side and left practically as a dome of certain thicknesses varying along certain lines in order to transform it into a sound
70 board of the greatest responsiveness, that is to give to it the greatest resiliency and vibratory power consistent with strength and durability. There is a slight transverse elevation directly across the plane where the bridge sets (Fig. 2), and it will thus be observed
75 that the sound board lies highly elevated because of the transverse and circular longitudinal arching (see Fig. 1, plane 19), which makes the top firm and secure against the great pressure of the strings bearing down upon the bridge, and strengthens it to such
80 an extent as to obviate the necessity of placing supporting bars or posts in the cavity of the instrument, which would necessarily mar its vibration and tonal effect. The top therefore is self-sustaining, but in order
85 to protect the upper edge of the sound hole, (Fig. 1, 24) a short protecting bar about four inches in length is placed on the inside of the top at this point (Fig. 4, 23). Thus the top, or sound board, is transformed into an
90 elevated shell of certain thicknesses in keeping with the rules of acoustics in wood, the result being a phenomenal success in the power and tonal qualities of the instrument. With such an elevated top it was found
95 necessary to design a reinforcing block, 25, and tail piece, 26, to raise the strings entirely above the top, and thus prevent any interference with the free vibration of the table in all its length and breadth.

The rib 6, Fig. 2, extending entirely around the instrument and uniting the top with the back, is narrowest at the base of the neck, but gradually increases in width on both sides 13 and 15, as it extends back to the
100 middle point of the butt end at 14. In order to strengthen the rib and enable it to be firmly glued to the rims respectively above and below of the top and back, so as to unite the whole body firmly together, both edges of the rib are lined on the inside, above and
105 below, (Figs. 4 and 5, 17,) with a narrow strip of wood; and in order to prevent the stiffness of these supporting strips from in any degree interfering with the natural

vibration of the rib as a conductor, I have notched the strips, as will be seen (Fig. 4, 18 above and below), at close intervals all around the instrument.

The bridge 22 has position on the slightly arched table or top, 19.

On the inside butt end of the body is provided a reinforcing block (25, Fig. 4) to which the tail piece (26, Fig. 2) of the instrument is firmly secured through the rim by screws. After the instrument has been completed and thoroughly joined together with the neck by firmly cementing the top and back respectively to the upper and lower edges of the reinforced rib, I again reinforce the union of all the parts with a strong outside bead 27 cemented over the joined edges from the base of the neck on both sides all around the body, above and below, in order both to strengthen and give the instrument a finished and artistic appearance.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is,—

1. A mandolin comprising a head, neck and body, the neck being grafted into the body, and the body being composed of a top and back joined together by a reinforced rib, said top and back each being formed from a solid dug out block of wood and shaped with convex curves departing from a plane center and merging into concave

lateral curves, terminating in a flat flange or rim all around said body, the said rib being reinforced with notched strips along its inner edges, and being graduated in width, being narrowest at the neck end of the instrument on both sides, and widest at the middle point of the butt end thereof, substantially as specified.

2. A mandolin comprising a head, neck and body, said body having a perforated scooped-out top which slopes downwardly from near the butt end of the instrument where it is highest to the neck end thereof, said mandolin also having a scooped-out back, and a rib extending continuously around the instrument and joining the top with the back, said rib being narrowest at its ends adjacent the neck and widest at the butt end of the instrument.

3. A mandolin having a head, neck and body, said body having a top and back joined together by a rib, said rib being graduated in width with notched strips strengthening said rib, said rib extending continuously around said body from the base of the neck on one side to the base of the neck on the other, and having a less width at its two ends than at any point between said ends and the central point of the butt end of said body, substantially as specified.

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

WILLIAM C. CLOPTON.

Witnesses:

ALEX. JAMES,
SANDS SMITH.