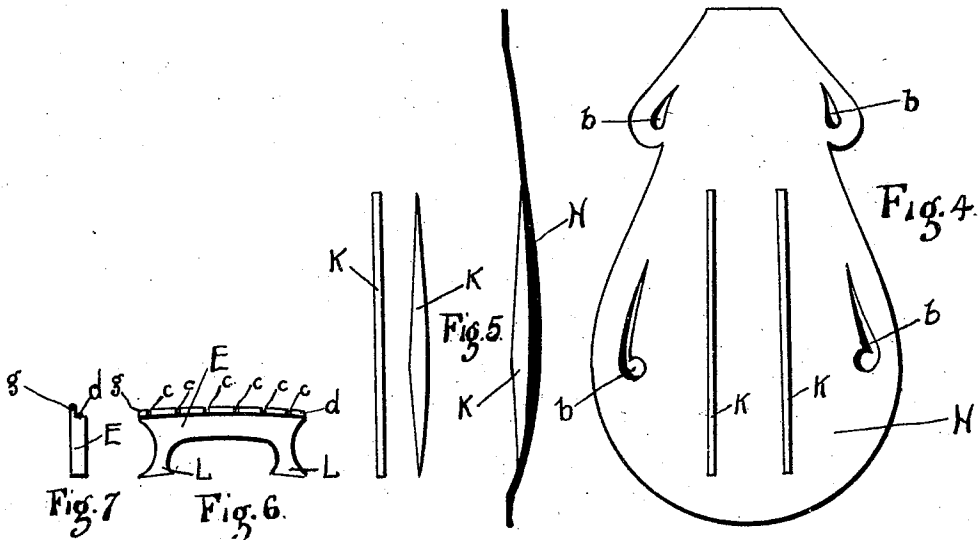
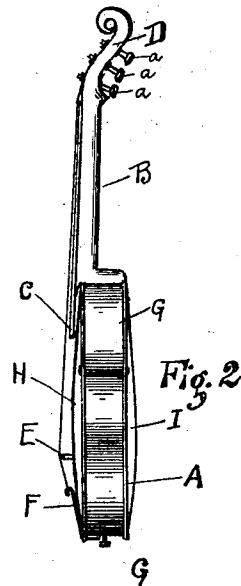
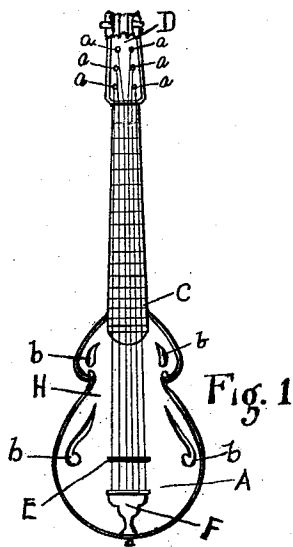
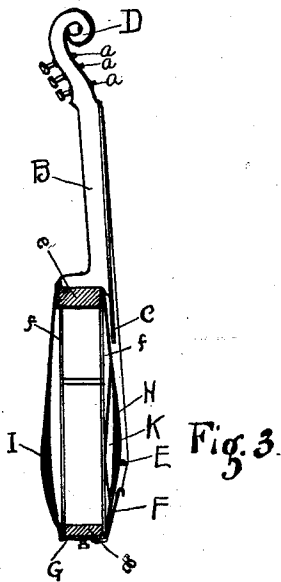


(No Model.)

A. H. MERRILL.
MUSICAL INSTRUMENT.

No. 555,651.

Patented Mar. 3, 1896.



WITNESSES:

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ALBERT HERVE MERRILL, OF ATLANTA, GEORGIA.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 555,651, dated March 3, 1896.

Application filed May 24, 1895. Serial No. 550,542. (No model.)

To all whom it may concern:

Be it known that I, ALBERT HERVE MERRILL, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new, original, and useful Musical Instrument, termed a "Chordola," of which the following description, in connection with the accompanying drawings, is a specification.

10 My invention relates to a stringed musical instrument of the percussion class, of the guitar and mandolin type, in that it is intended to be picked by the fingers or a plectrum of horn or metal, the tones thereof having a peculiar and distinct character to itself
15 and harmonizing more perfectly with the tones of the violin or bow family of musical instruments than any other stringed instrument heretofore made or used, and possessing
20 greater "carrying power" or penetration of tone than any of the similar classes of stringed instruments, rendering it a valuable and useful addition to the musical world for solo, concert, and orchestral work. I attain this result
25 by making a body or sound-box with egg-shaped hoop or sides and graduated convex back and top, to the upper extremity of which and as a continuation of the main air-chamber is a smaller secondary air-chamber, both
30 said air-chambers being necessary to obtain the required tone. To the upper end of the secondary air-chamber is attached the neck, and on the top surface of the neck is fastened the finger-board, furnished with metal frets at
35 the proper intervals to produce the tones and semitones. At the upper end of the neck is the carved head or scroll, furnished with any number of pegs or keys (according to the number of strings used, my preference being
40 six to eight) to stretch the strings to the proper tension in order to obtain the notes or tones desired. The lower end of the finger-board does not rest upon nor touch the top of the body or sound-box, but projects over it to
45 any sufficient distance for the required number of frets.

The top and back of the body or sound-box of this instrument are concave upon their inner surface and convex upon the outer, and
50 are made thickest near the center, which is the point of least vibration or greatest re-

sistance, and thinnest at the edge where they are glued to the hoop or sides. Such graduation has never before been applied to instruments of percussion. The back is made solid,
55 but in the top or sound-board on each side of the "bridge," so called, over which the strings pass (and the position of which bridge determines the length of string to be used and the position of the frets upon the finger-board)
60 and near the edge of the top, is cut an "f" or sound hole of peculiar but necessary shape, and on each side of the projection of the finger-board in the secondary air-chamber is another sound-hole of different shape. These
65 four holes are for the purpose of emitting the sound-waves produced in the body or sound-box by the vibration of the strings communicated to the top by the bridge and are of just sufficient size and of proper shape to
70 produce "C" natural, (as termed in the language of music,) the true acoustical tone of such instrument, and if said holes are varied in size or form the tone will be changed.

Upon the thickest portion of the top or
75 sound-board stands the bridge, having two legs or feet and furnished upon its upper edge with a metal wire or fret over which the strings pass. At the rear of this fret is a slight upward projection of the wood, through which are cut
80 slots of sufficient number to accommodate the number of strings to be used, and which slots prevent the strings from moving and rattling when being played upon.

On the inner or under side of the top or
85 sound-board, with its strongest parts directly under the two legs or feet of the bridge, are glued two bars of wood, pointed at each end and widest in the middle, running longitudinally with the grain of the top or sound-board
90 to strengthen said top in sustaining the weight or tension of the strings when tuned for playing.

At the lower end of the body or sound-box of the instrument, and attached to the hoop
95 with a small screw or screws, is a metal "tail-piece," so called, bent at an obtuse angle that it may not touch nor rest upon the top or sound-board, to which is fastened one end of the strings used, the other ends being at-
100 tached to the pegs or keys in the head of the instrument, heretofore described.

All taken together, I have a neat, compact, useful, and artistic appearing instrument of peculiar tone and shape having an entirely original and different character from that of any instrument heretofore made.

For a better comprehension reference must be had to the accompanying drawings, forming a part of this specification, in which like symbols indicate corresponding parts, and wherein—

Figure 1 is a front elevation of the complete instrument in its necessary and therefore preferred form, in which A represents the body or sound-box; C, the fretted finger-board attached to the upper surface of the neck and projecting over but not resting upon nor touching the body or sound-box; D, the carved or scroll head, through which and projecting from its upper surface are the pegs or keys *a a a a a*; E, the bridge, and F the tailpiece or string-holder. *b b b b* are the sound-holes, in form as shown.

Fig. 2 is a side elevation showing the swell in the top or sound-board and back, B the neck, and G the hoop or sides.

Fig. 3 is a longitudinal cross-section of the instrument, showing the arched or concavo-convex form of the top or sound-board and back, (represented by H and I,) graduated thickest in centers and thinnest at edges; also the projecting finger-board C and the bars of wood K strengthening the top II, *ee* showing the strengthening-block inside each end of the body or sound-box and *ff* showing V-shaped linings to strengthen joinings of hoop or sides with top and back.

Fig. 4 is an interior plan view of the top,

showing the four sound-holes *b b b b* and the two supporting-bars K K.

Fig. 5 is a longitudinal section of the top or sound-board, showing longitudinal bars or bracings K and the manner of graduation. The point of greatest thickness of both top and bars or bracings lies immediately under the bridge E, and the graduation is made with this point in view.

Figs. 6 and 7 are the front and end views of the bridge, L L representing the legs or feet which rest upon the top or sound-board to support the strings, and *d* the wire fret in the bridge, and *g* is the projection of the wood above the fret, in which are cut the slots *c c c c c c*, through which the strings pass and are held in place.

What I claim, and desire to secure by Letters Patent, is—

In a stringed musical instrument of the percussion class the combination of an egg-shaped main air-chamber, or body, with a smaller secondary air-chamber, the raised neck with scroll, or carved head, and the projecting fretted finger-board, the graduated concavo-convex back and top, or sound-board, the said top having the four “*f*,” or sound holes of the form shown, and the longitudinal bars, or bracings, upon the concave side; also the bridge with its two legs, or feet, fret and slots, the purposes of all of which are substantially herein set forth.

ALBERT HERVE MERRILL.

Witnesses:

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