

(No Model.)

O. H. GIBSON.  
MANDOLIN.

No. 598,245.

Patented Feb. 1, 1898.

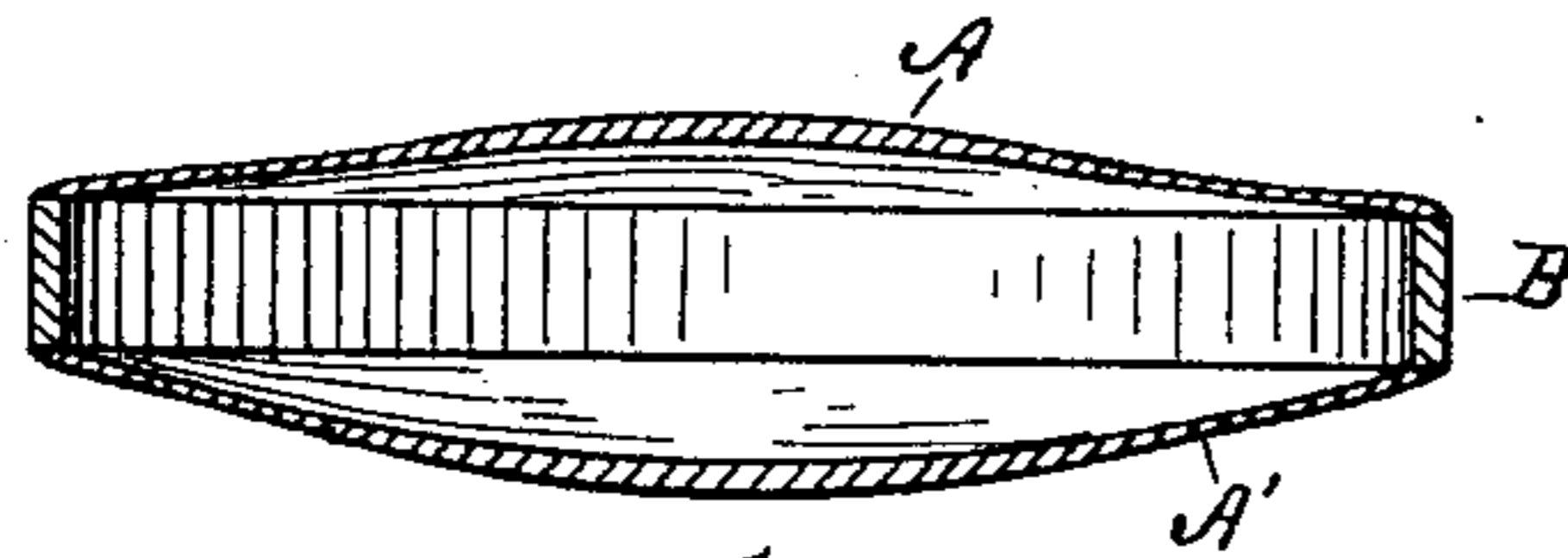


Fig. 3

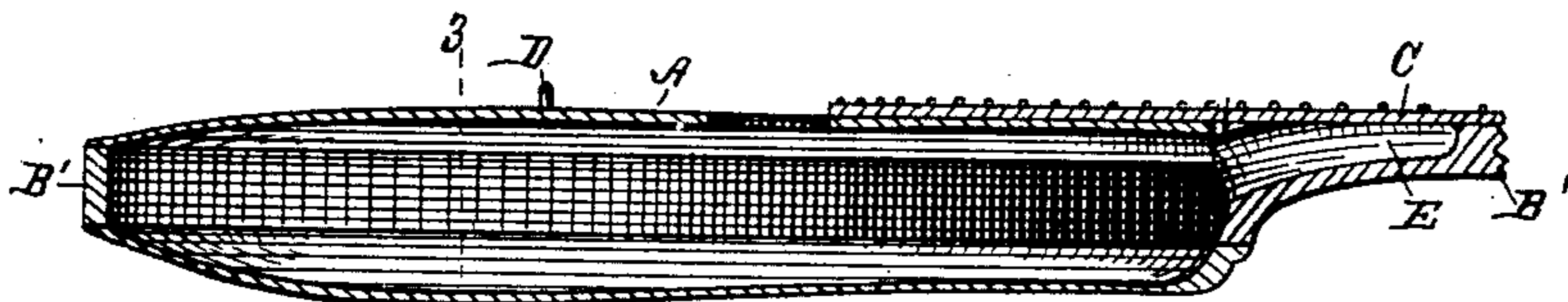


Fig. 2.

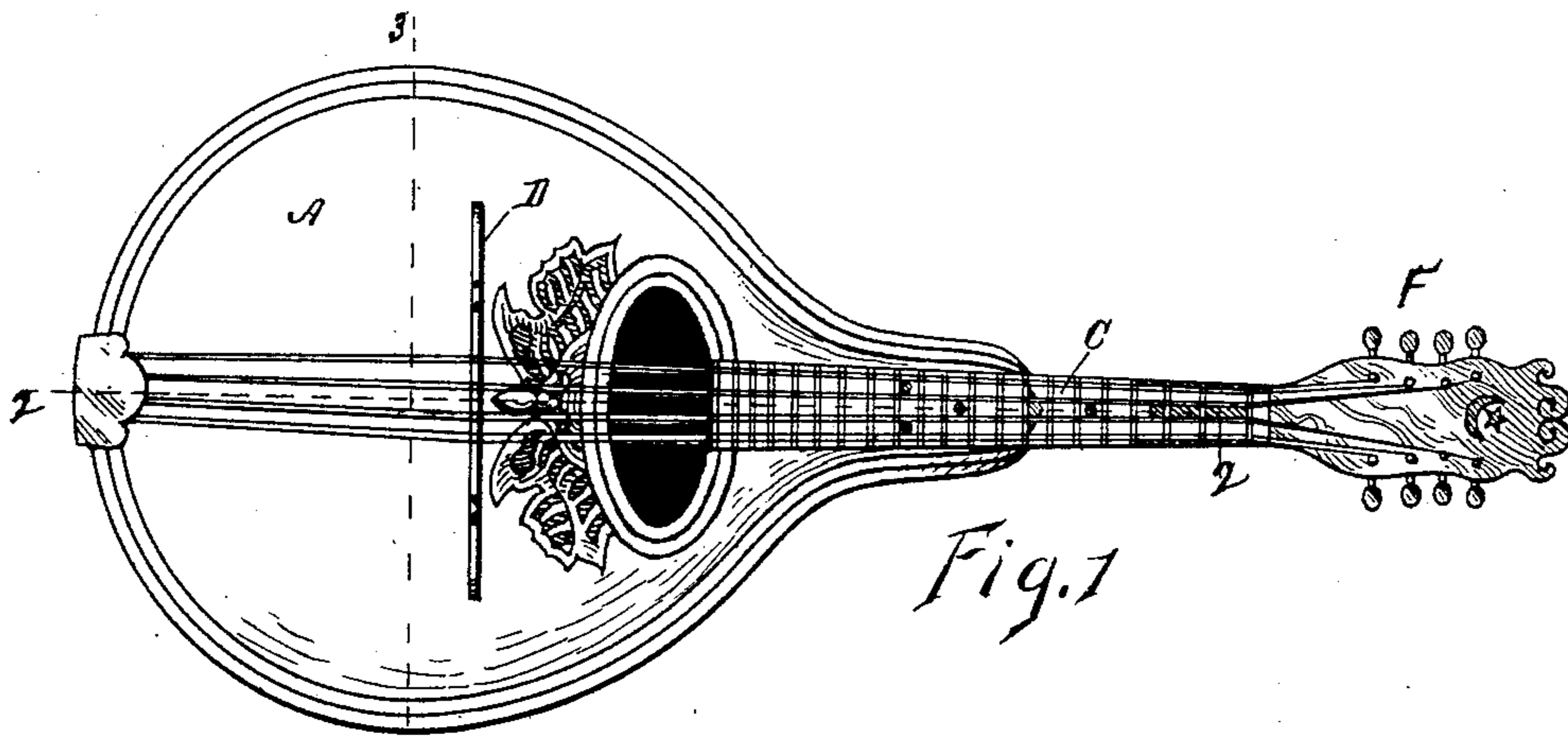


Fig. 1

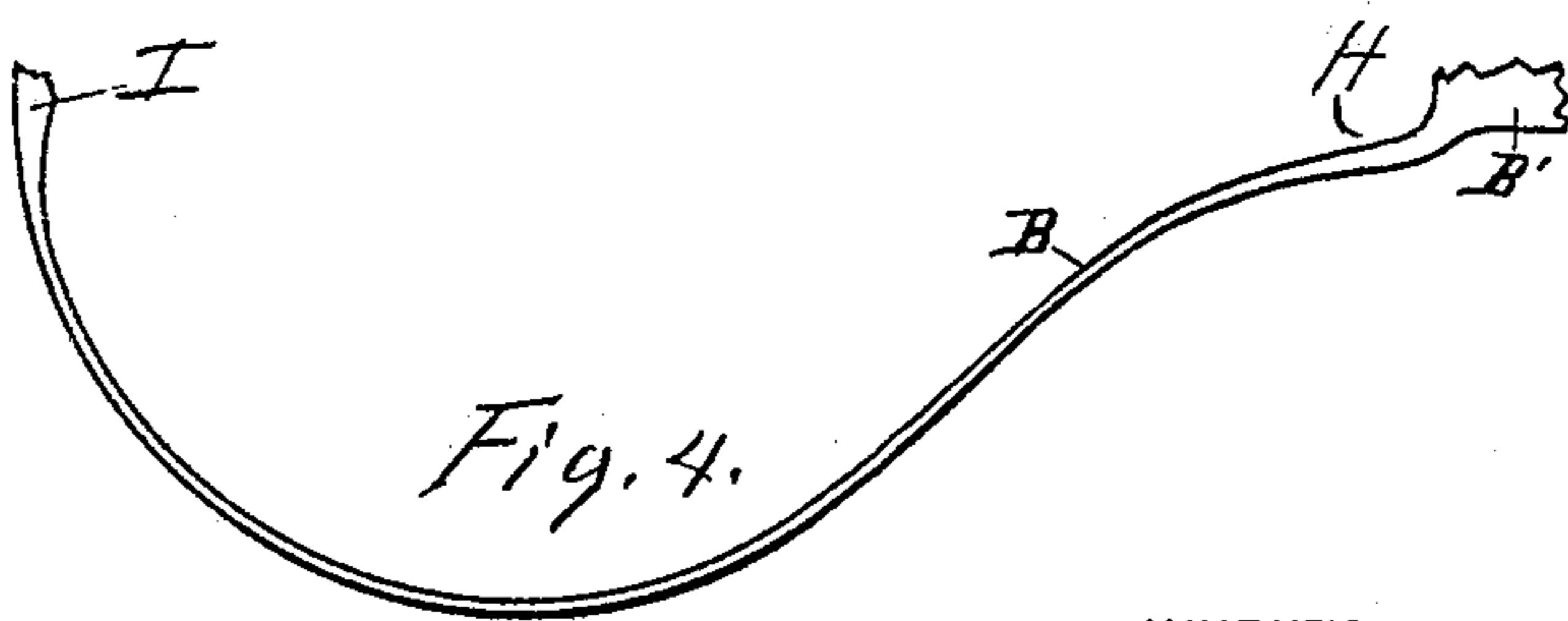


Fig. 4.

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ORVILLE H. GIBSON, OF KALAMAZOO, MICHIGAN.

## MANDOLIN.

SPECIFICATION forming part of Letters Patent No. 598,245, dated February 1, 1898.

Application filed May 11, 1895. Serial No. 548,931. (No model.)

*To all whom it may concern:*

Be it known that I, ORVILLE H. GIBSON, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a certain new and useful Improved Mandolin, of which the following is a specification.

This invention relates to that class of stringed instruments known as "mandolins," "guitars," "mandolas," and "lutes;" and it specifically relates to the construction of the body, neck, and head of such instruments to gain the advantages set forth below.

Heretofore mandolins and like instruments have been constructed of too many separate parts bent or carved and glued or veneered and provided with internal braces, bridges, and splices to that extent that they have not possessed that degree of sensitive resonance and vibratory action necessary to produce the power and quality of tone and melody found in the use of the instrument below described.

The object of this invention is to correct these objections and attain the results above set forth, and I have attained that degree of success with continued experiments and manufacture that every portion of the woody structure seems to be alive with emphatic sound at every touch of the instrument—a character and quality of sound entirely new to this class of musical instruments, and which cannot be imparted to others by a description in words.

A construction embodying my invention is below described in detail.

In the drawings forming a part of this specification, Figure 1 is a plan view of the instrument complete; Fig. 2, a longitudinal section on line 2 2 in Fig. 1, looking from a point below and showing the head of the instrument broken away; Fig. 3, a section on lines 3 3 in Figs. 1 and 2, looking from a point at the right; and Fig. 4 is a broken detail from Fig. 1, showing a portion of the rim.

Referring to the parts of the drawings pointed out by letters, A is the front board or sounding-board, upon which rests the ordinary bridge D, which supports the strings. The back is shown at A', the neck at B', the head at F, and the rim at B. This rim B is of suitable width, somewhat circular in form, and it and the neck B' and the head F are all

carved out of a single piece of wood integral with each other in a manner to leave the layer-grains of the wood in the same position they occupied in the natural growth, thus being contrasted with rims bent or veneered or made separate from the neck and head. Thus made the entire integral structure has a delicate resonance which is contributed to by each of these integral parts in a manner that could not transpire if the parts were separately made and attached together or if this part of the mandolin was bent out of strips of wood in a manner to interrupt the grain layers, as stated. The rim, neck, and head thus made have a sort of common relation with each other in their mutual contributions to the peculiar tone of the instrument. The front board or sounding-board A and back A' are also carved, not bent, from separate pieces of wood in a manner so as not to disturb the regular grain layers of the wood in its natural growth, as in the described construction of the integral rim, neck, and head. The idea is to dress these boards so their resonance and vibratory qualities will at least be in accord with those of the integral rim, neck, and head, while at the same time they cannot be said to be as strictly in common as they would be were it possible to make the rim, neck, and head and the sounding-board and the back board all integral, but I have arrived as nearly to this as is practical in the manufacture of the instrument.

The front board or sounding-board and the back board are carved in a somewhat convex form to give them proper stiffness and are preferably the thickest at and near the center. They are attached to the rim by gluing and form an upper and lower closure to the hollow body of the instrument. It will be observed that with the parts thus constructed and put together no braces, splices, blocks, or bridges are necessary in the interior of the body of the instrument, which, if employed, would rob the instrument of much of its volume of tone and the peculiar excellency thereof.

Another feature of the instrument which contributes to its described qualities is the forming of the hollowed-out portion E of the neck B' beneath the finger-board C, so that it communicates directly with the hollow inte-



rior of the body, as seen in Fig. 2, thus virtually extending the hollow air-space into the neck of the instrument, which increases its resonant and vibratory qualities.

5 The rim is thickened up where it joins the neck at H and also at the point where the tail-piece is placed, to which one end of the strings are attached in the ordinary manner at I, Fig. 4. Thus the entire instrument, aside  
10 from the finger-board, strings, bridge beneath them, and the tailpiece, is composed of only three parts peculiarly constructed and having the desired quality of vibratory and resonant characteristics.

15 Just the degree and the graduation of the thickness of parts comes to an expert almost intuitively by long practice and cannot be communicated to another in words.

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

1. A musical stringed instrument, comprising a front board, a back board, the ordinary finger-board, strings and bridge beneath, and  
25 an integrally-formed neck and rim carved from a piece of wood so as not to disturb the regular grain layers as grown, the neck having a hollowed-out portion beneath the finger-board communicating directly with the hol-  
30 low interior of the body of the instrument, substantially as set forth.

2. A musical stringed instrument, comprising a rim, neck and head, all formed integrally by being carved from a piece of wood so as  
35 not to disturb the regular grain layers as grown, a front board and back board each carved from a piece of wood so as not to disturb the regular grain layers as grown, the neck having a hollow portion communicating  
40 directly with the hollow interior of the body of the instrument, said hollow interior of the body being free from braces, splices, blocks and bridges, and the ordinary finger-board, strings and bridge beneath them, substantially as set forth. 45

3. In a musical stringed instrument, a rim, neck, and head, all integrally formed from a single piece of wood so as not to disturb or  
50 change the regular position of the grain layers as grown, said neck having a hollow portion directly communicating with the hollow interior of the body of the instrument beneath the finger-board, substantially as set forth.

In witness whereof I have hereunto set my  
55 hand and seal in the presence of two witnesses.

ORVILLE H. GIBSON. [L. s.]

Witnesses:

MARIAN I. LONGYEAR,  
WALTER S. WOOD.