

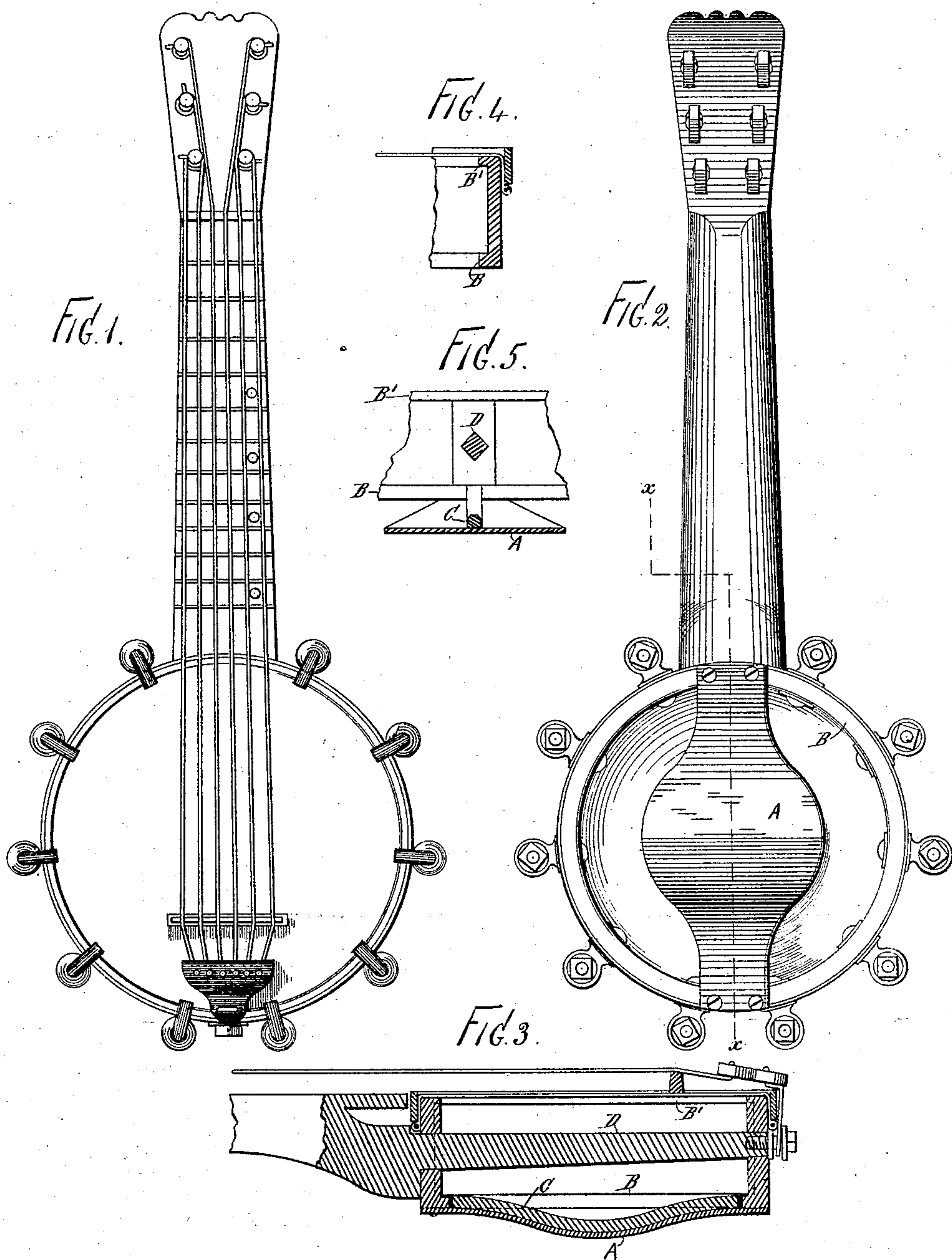
(No Model.)

A. LOPES.

BANJO.

No. 280,839.

Patented July 10, 1883.



Witnesses:
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Henry Lib.

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UNITED STATES PATENT OFFICE.

ANTONIO LOPES, OF BROOKLYN, NEW YORK.

BANJO.

SPECIFICATION forming part of Letters Patent No. 280,839, dated July 10, 1883.

Application filed November 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO LOPES, a citizen of the Kingdom of Portugal, at present residing in the city of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Banjos, of which the following is a full, clear, and exact description, sufficient to enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention has relation particularly to that class of musical instruments popularly known as "banjos," and has for its object the production of an instrument which will afford increased richness of tone, volume, and continuation of sound when being played upon, which may be conveniently and easily supported in correct position by the player without interference with the sound-waves, in which the walls of the drum may be made lighter and cheaper than usual without detracting from any of the valuable qualities of the instrument, and which will preserve a more than common uniformity of tone throughout the life-time of the instrument.

To accomplish all of this my improvements involve certain novel and useful peculiarities of construction, arrangements, or combinations of parts and details of manufacture, all of which will be herein first fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a face or plan of the front of a banjo constructed and arranged in accordance with my invention, and Fig. 2 is a plan of the back thereof. Fig. 3 is a longitudinal sectional view of the drum portion of the banjo upon a plane passing through line *x x* of Fig. 2. Fig. 4 is a section of a fragment of the drum, showing the location and arrangement of the two inwardly-projecting rings or rims employed for modifying the direction of the sound-waves and for strengthening the drum. Fig. 5 is a cross-section through the supporting-board and the stiffening-brace located on the inner side thereof.

In all these figures like letters of reference wherever they occur indicate corresponding parts.

The cylinder or drum of the banjo is made in the usual form and of the usual materials.

A represents my improved supporting-board applied upon the under side or back of the drum of the banjo. This board extends entirely across the central part of the drum and conceals the cross stick or bar which is shown at D, being secured at its ends to the rim of the drum with screws or otherwise. It is made wider in the center than at the ends, as shown, and covers only a part of the back of the drum, leaving open spaces between its margins and the margin of the drum on each side. It is made of wood, and is arched in the central part, or made to project beyond the plane of the bottom of the drum, as shown in the sectional view, Fig. 3. Its uniform thickness is about one-fourth of an inch, and its length and breadth at the center and ends for an ordinary banjo are, in respect to the drum, about in the proportions indicated in the drawings. On the under side of this board A is a chamfered wooden brace, C, secured so as to extend along the middle of the said board, and terminating at the inner edge or circumference of the interior rim, B, to be referred to hereinafter. This brace aids in supporting the board A. On the inner surface of the drum of the banjo are two rims or bands, B and B', made of wood and glued into place—one at the front of the drum and the other at the back thereof, as shown. The front interior rim or band, B', is so located that its front edge extends to and is flush with the front edge of the drum, and its objects are to give strength and firmness to the rim of the drum of the banjo at the top or front, and in connection with the other features or appliances to advantageously modify the sound. The other rim or band, B, is also attached to the inner surface of the drum of the banjo, its lower margin being flush with the lower margin of the drum, and it also serves to strengthen the drum at its place of attachment, as well as to intercept, modify, and direct the sound-waves with respect to the board A and the interior portions of the drum. The construction and arrangement of the board A are such that when the improved banjo is held in proper position (for playing) the drum thereof is maintained at a distance from the clothing of the player, allowing free passage for the sound-waves, which pass through the open spaces between the margin of the drum and the margin of the board A, and this pre-

vents the sound from being deadened or disturbed by the pressure of the clothing of the player, and affords a stronger, purer, and more continuous tone than would otherwise result, 5 and obviates the twanging sound which has hitherto been an objectionable characteristic of the banjo.

The above-described construction also permits the walls or sides of the drum to be made 10 of lighter material, less in thickness and in body, and at less expense than as heretofore constructed, and yet possessing greater strength and firmness, and consequently greater durability. The sound-waves touching the projecting rims are deflected toward the center of 15 the drum before they can escape at the openings provided for the purpose, and in like manner those touching the board A are deflected back into the body or central part of the drum 20 before they can escape. These parts are so combined and arranged as to afford the tones with above explained qualities.

In practice the improved banjo is found to afford a stronger, clearer, and more continuous 25 and melodious tone than those of the hereto-

fore ordinary construction, and generally to answer all the purposes and objects of the invention as above set forth.

Having now fully described my invention, what I claim as new, and desire to secure by 30 Letters Patent, is—

1. In a banjo, the narrow arched supporting-board attached to the wall of the drum at each end, and leaving the open space on each side between its margin and the margin of the 35 cylinder or drum, substantially as and for the purposes set forth.

2. In a banjo provided with the supporting-board, and having openings on each side thereof, as explained, the interiorly-projecting rims 40 secured upon the inner surface of the cylinder at the front and rear thereof, serving to strengthen the cylinder and to modify and direct the sound-waves toward the interior, substantially as and for the purposes set forth.

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Witnesses:

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