(No Model.)

# T. WOLFRAM.

## FINGER BOARD FOR MUSICAL INSTRUMENTS.

No. 497,973. Patented May 23, 1893.

*Fig. 1.*

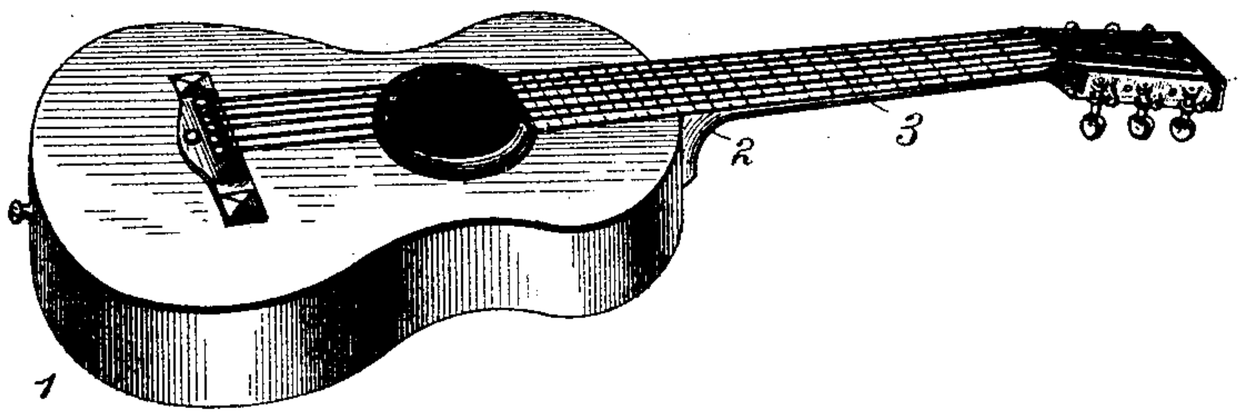



*Fig. 2.*

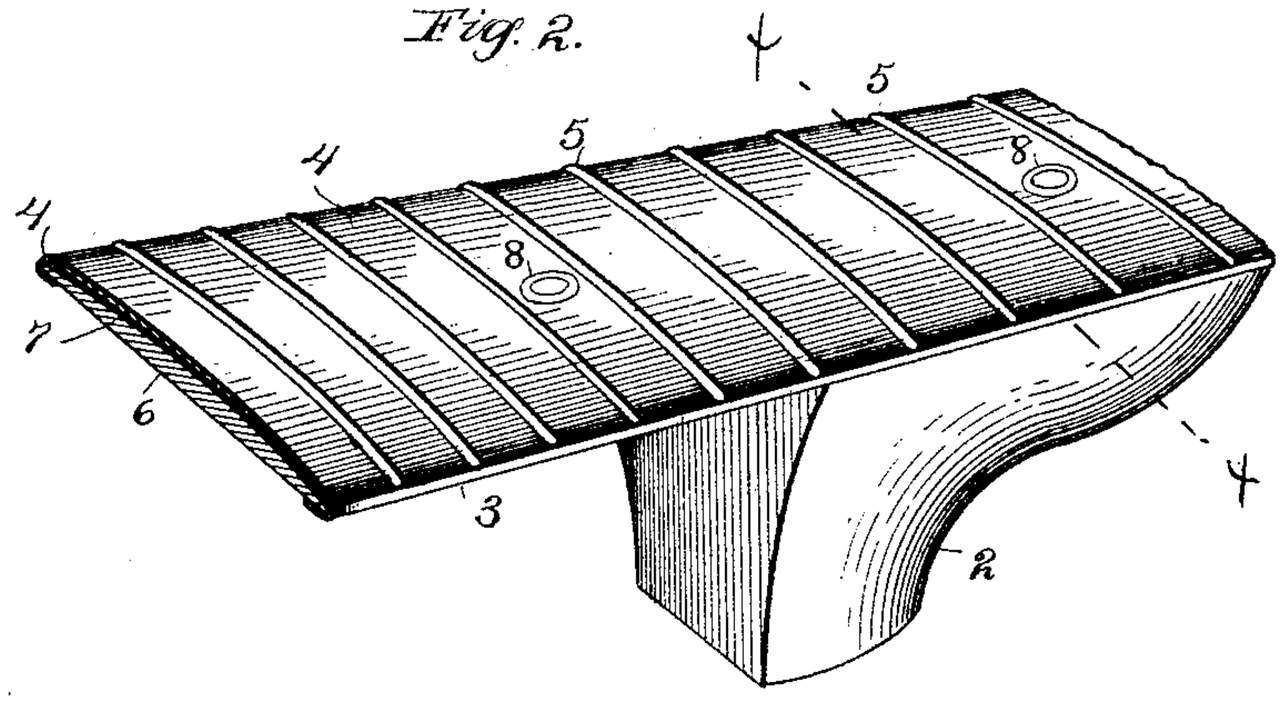
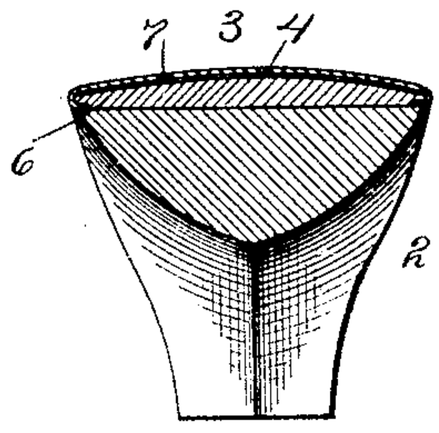



*Fig. 3.*

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# UNITED STATES PATENT OFFICE.

THEODORE WOLFRAM, OF COLUMBUS, OHIO.

## FINGER-BOARD FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 497,973, dated May 23, 1893.

Application filed January 24, 1893. Serial No. 459,591. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE WOLFRAM, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Finger-Boards for Musical Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in fingerboards for musical instruments, and particularly to improvements in metallic finger boards, having frets formed in the surface thereof for the guidance of the players.

The object of my invention is to produce a fingerboard which can be used without material change with guitars, mandolins, banjos, and all other instruments using fingerboards, both with that class of instruments wherein the fingerboard extends over the body of the instrument, and that wherein it extends merely to the body of the instrument; and which shall, by preventing all vibration in the neck of the instrument, and confining it to the bridge, produce a fuller, richer, and rounder tone.

I accomplish the object of my invention by the use of a fingerboard consisting of a strip of metal on which frets are stamped, molded, or impressed, and between the downwardly and inwardly turned sides of which is tightly secured a strip of wood, shaped similarly to the metallic strip, but having a perfectly level lower surface, to adapt it for being secured to the neck of the instrument to which the fingerboard is to be applied. I fill the space left between the upper surface of the strip of wood and the strip of metal by a filling of felt, cloth, or like material, thus preventing any vibration which might otherwise exist in the fingerboard. The fingerboard, so formed, is then glued or screwed, or otherwise tightly fastened to the neck of the instrument to which it is to be applied, part of it extending over the body of the instrument when it is used with instruments, such as guitars, whose fingerboards are customarily so placed.

My invention is fully represented in the drawings accompanying and forming a part of this application, in which the same reference numerals refer to the same or corresponding parts, and in which—

Figure 1 is a perspective view of a guitar to which my fingerboard is applied. Fig. 2 is a view of a portion of the fingerboard removed from the instrument, a section of the neck of the instrument being also represented. Fig. 3 is a section of Fig. 2 on the line $x$ $x$, showing particularly the shape into which the edges of the metallic strip are pressed, and the packing of felt, cloth, or like material between the upper surface of the strip of wood and said metallic strip.

Referring to the drawings, 1 indicates the body of the instrument, to the front portion of which is attached the neck 2, to which the fingerboard 3 is securely fastened.

The fingerboard 3 is formed as follows: A strip of hard metal, 4, such as brass, steel, nickel, aluminium, or other sufficiently rigid material is cut into the desired shape, and is then stamped or impressed in such a manner as to have the raised frets 5 formed on the upper surface thereof, or these frets may be molded in the metal, or formed in any other manner. The sides or edges of this metal strip are then by strong pressure bent downward and slightly inward around the edges of the strip of wood 6, which has previously been placed in position under said metallic strip, and then the extreme edges of the metallic strip are bent under, thus tightly holding the strip of wood in position. The top surface of this strip of wood is slightly curved, to correspond with the curvature of the metallic strip, but its lower surface is level and smooth, so that it can be tightly fastened to the neck of an instrument. Instead of having the top surface of the strip of wood fit tightly against the metal strip, a space or hollow may be left between them, and this space may be filled with felt, cloth, or other suitable filling, 7. This filling is especially desirable when the instrument to which the fingerboard is to be applied has its fingerboard extend over its body portion, as in guitars, and mandolins, as the vibration is thereby reduced, and a rounder,

richer, and fuller tone produced. On the upper surface of the metal strip are stamped or otherwise formed at appropriate points the position marks 8, for the guidance of the player.

The fingerboard thus completely formed is secured, either by glue, screws, or by any other suitable means, to the neck of the instrument to which it is to be attached, the formation of the fingerboard being such that without alteration except as to size it may be used as well with those instruments wherein the fingerboard extends over the body of the instrument as with those where the fingerboard extend only to the body of the instrument, the fingerboard being an entirety and capable of being placed in any desired position on any object. By my construction the vibration is confined entirely to the bridge of the instrument; also warping or bending of the neck of the instrument under the pressure and tension of the strings is avoided, as the fingerboard rests as a shoulder against the said neck, thereby still more stiffening and bracing the same.

Any of the ornamental metals may be used in the manufacture of the fingerboard, such as stated as aluminium, brass, steel, nickel, or German silver, or it may be made of other materials, such as celluloid, papier maché, gutta percha and the like, aluminium being however preferred on account of its light weight, rigidity, hardness, and reasonable cost. These metals may also be nickel-plated, japanned, or ornamented in any desired manner.

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

1. In a fingerboard for musical instruments, the combination with a strip of metal having downwardly and inwardly turned sides, of a strip of wood tightly secured between said sides, substantially as described.

2. In a fingerboard for musical instruments, the combination with a strip of metal having raised frets formed on its upper surface and having downwardly and inwardly turned sides, of a strip of wood tightly secured between said sides, substantially as described.

3. In a fingerboard for musical instruments, the combination with a strip of metal having downwardly and inwardly turned sides, of a strip of wood tightly secured between said sides, and a suitable filling between said strip of metal and said wooden strip to reduce vibration, substantially as described.

4. In a fingerboard for musical instruments, the combination with a strip of metal having raised frets formed on its upper surface and having downwardly and inwardly turned sides, of a strip of wood tightly secured between said sides, and a suitable filling between said strip of metal and said wooden strip to reduce vibration, substantially as described.

5. The combination with the neck of an instrument, of a fingerboard secured thereto, said fingerboard consisting of a metal strip having tightly inclosed between its downwardly and inwardly bent sides a strip of wood, substantially as described.

6. The combination with the neck of an instrument of a fingerboard secured thereto, said fingerboard consisting of a metal strip having tightly inclosed between its downwardly and inwardly turned sides a strip of wood, and having a suitable filling between said strip of wood and said strip of metal to reduce vibration, substantially as described.

7. The combination with the neck of an instrument of a fingerboard secured thereto, said fingerboard consisting of a metal strip having raised frets formed on its upper surface, and tightly inclosing between its downwardly and inwardly turned sides a strip of wood, and having a suitable filling between said strip of wood and said strip of metal to reduce vibration, substantially as described.

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

THEODORE WOLFRAM.

Witnesses:
JOHN E. SEIPEL,
EMIL WIEDERHALD.