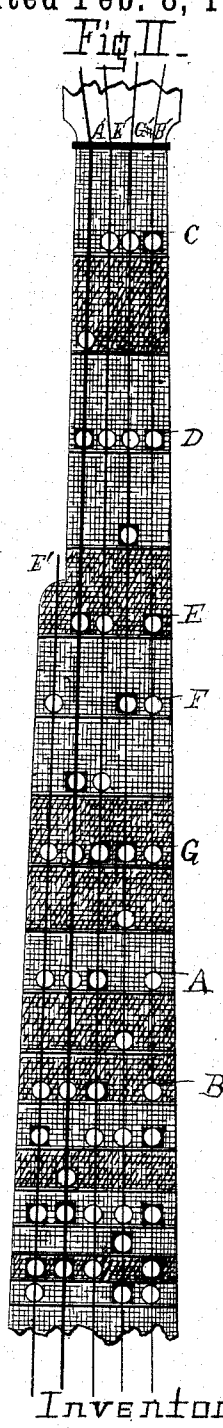
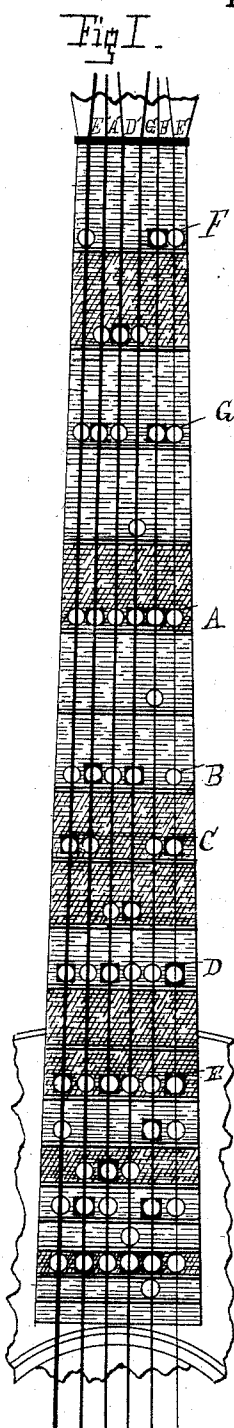
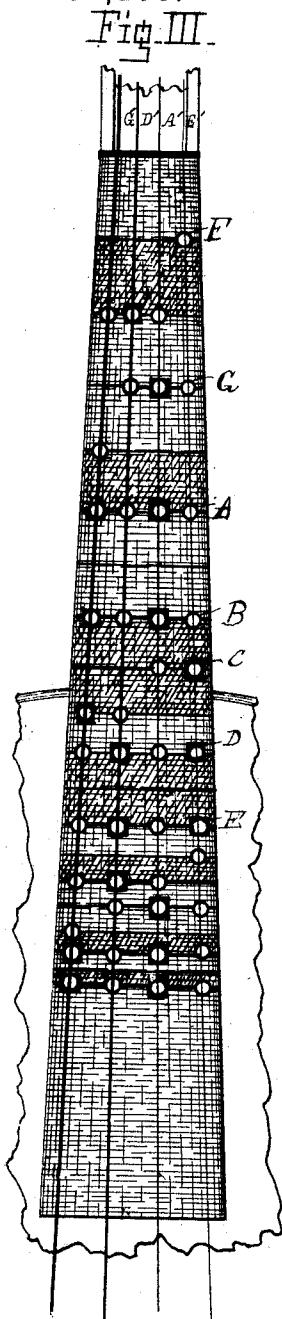


(No Model.)

V. T. BARNWELL.
MUSICAL INSTRUMENT.

No. 357,168.

Patented Feb. 8, 1887.



Witnesses—

A. P. Wood.
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UNITED STATES PATENT OFFICE.

VALENTINE T. BARNWELL, OF ATLANTA, GEORGIA.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 357,168, dated February 8, 1887.

Application filed July 16, 1886. Serial No. 208,224. (No model.)

To all whom it may concern:

Be it known that I, VALENTINE T. BARNWELL, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Musical Instrument; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in stringed musical instruments having finger-boards on which the strings are pressed by the fingers for a portion of the tones; and it consists of a finger-board having frets or fret-lines and marks by which the tones of the diatonic scale may be readily distinguished from the other tones of the chromatic scale, and other distinguishing marks, as will be hereinafter fully described and then specifically claimed.

In the accompanying drawings, Figure I represents a portion of the guitar, including the finger-board. Fig. II is a similar portion of a banjo, and Fig. III is a similar portion of a violin. An illustration of the application of this invention is shown on these three instruments to show the principle of application. It may be applied to any instrument of the same class.

In these figures, 1 is a finger-board, 2 represents the frets, and the springs are represented by capital letters primed. The positions on the finger-board of the tones of the diatonic scale are marked by the letters A, B, C, D, E, F, and G.

In the science of music there is known but one practical system of grading the different degrees of tone-pitch—namely, that of dividing the monochord into twelve parts, which are called “semi-tones” or “half-steps.” For the purpose of my present description I prefer to call these parts “half-steps.” This series of twelve half-steps forms what is called the “chromatic scale.” By omitting the second, fourth, seventh, ninth, and eleventh of these tones of the chromatic scale, which are marked on the drawings *cd*, *de*, *fg*, *ga*, and *ab*, we have

left only seven tones—namely, the first, third, fifth, sixth, eighth, tenth, and twelfth—which constitute the diatonic scale—that is to say, all the tones properly belonging to any given key in music of the major mode.

It is exceedingly difficult to learn the art of music upon the finger-boards of stringed instruments as commonly constructed. This difficulty I overcome by marking, as shown, the tones of the diatonic scale to distinguish them from the other tones, and to furnish appropriate markings on the finger-board, in groups, composed of any particular tone and those immediately surrounding it. No two groups in the same octave are likely to be alike, by reason of which no two tones on the same portion of the finger-board will have surroundings of the same appearance to the eye.

I further distinguish the different tones of the diatonic scale by indicating them by spots of a different form or color in groups of several, which groups will recur in all the octaves. I also distinguish the different frets or fret-lines by shading the ground-work between them in different colors or shades, which shading will be exactly repeated in each succeeding twelve frets or fret-lines, as the tones are exactly repeated after twelve frets or fret-lines, but in a different octave.

It is obvious that the form or color of the spots, or the color of the groundwork, is not material, as the principle of the invention is to afford, by means of contrasts on the finger-board, as above described, a means of finding on the finger-board the exact position of all the tones of the chromatic scale, the absence of which means of identification has heretofore been an obstacle to the playing of music correctly on instruments of the above description.

I am aware that a series of studs projecting above the finger-board of musical instruments, to indicate the diatonic scale, has been invented, as shown in English Patent No. 2,729 of 1863. I do not therefore claim all systems of indicating these scales. In my finger-board it will be observed that the spots used for indication do not project above the general surface of the board, and do not take the place of frets, and, further, that they are used to indicate not only the diatonic but other tones of the chromatic scales.

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

1. In a stringed musical instrument, a finger-board on which the diatonic tones are indicated by spots of a different color from that of the finger-board and not projecting above its surface, to distinguish them from the other tones of the chromatic scales, substantially as shown and described.

2. In a musical instrument, a finger-board having a series of different shades or colors between the frets or fret-lines to indicate the tones of an octave, said series being repeated

for each octave throughout the length of the board, substantially as shown and described.

3. In a musical instrument having a finger-board on which the diatonic scale is indicated by spots at the frets or fret-lines, the combination of square and round spots in a uniform position in each octave, substantially as described, and for the purpose specified.

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

V. T. BARNWELL.

Witnesses:

A. P. WOOD,
JOHN J. WOODSIDE.