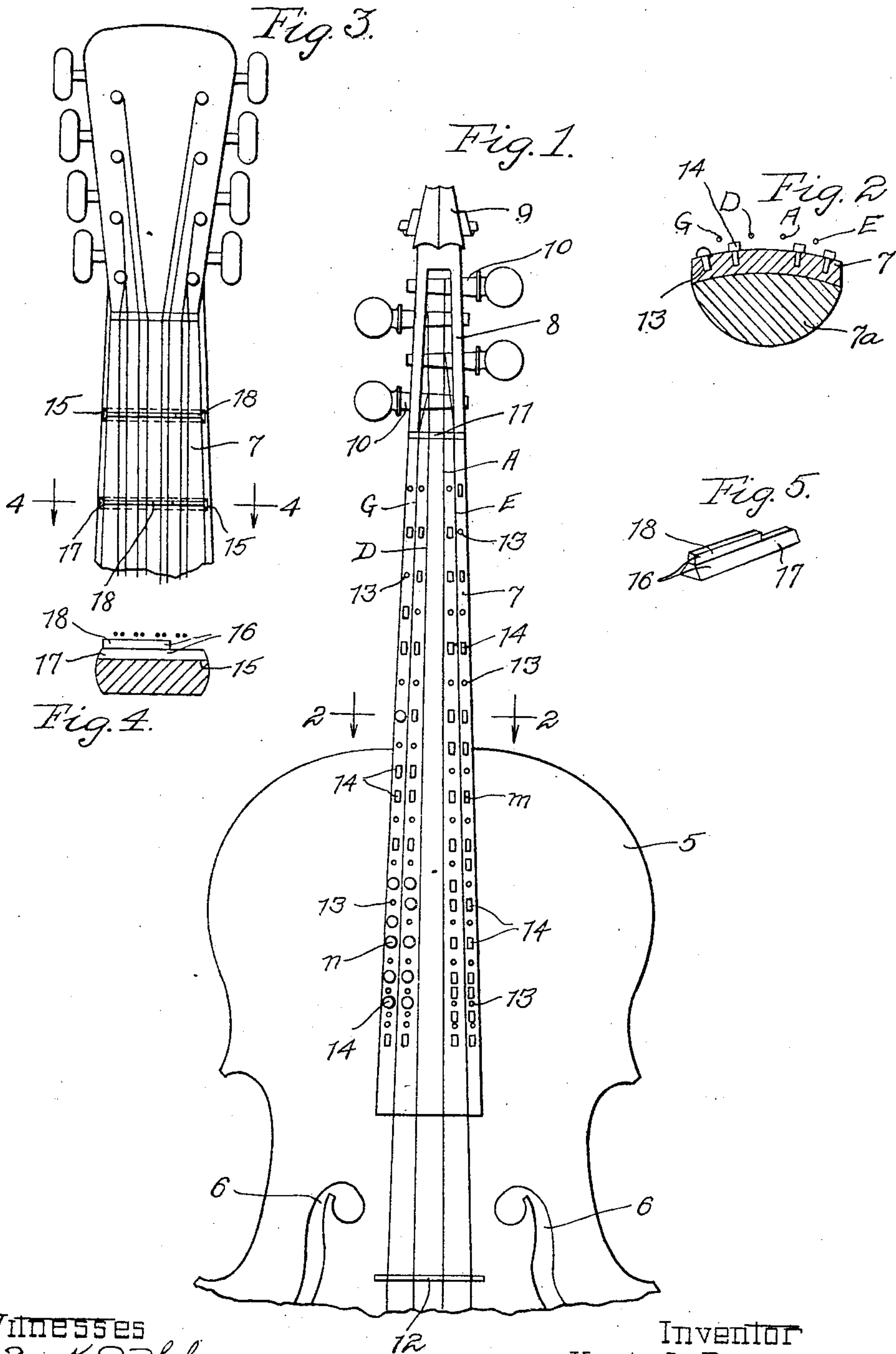


K. I. FINNEY.
FINGER BOARD FOR MUSICAL INSTRUMENTS.
APPLICATION FILED JULY 8, 1909.

967,507.

Patented Aug. 16, 1910.



Witnesses

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FINGER-BOARD FOR MUSICAL INSTRUMENTS.

967,507.

Specification of Letters Patent.

Patented Aug. 16, 1910.

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To all whom it may concern:

Be it known that I, KNUTE I. FINNEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Finger-Boards for Musical Instruments, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to finger boards for musical instruments, and is directed toward an improved structure for facilitating playing.

Although it will appear hereinafter that the arrangement of my invention may be employed by skilled musicians, I particularly contemplate the use thereof by a pupil during a period of instruction.

Broadly, the construction of my invention is a musical instrument upon which is provided means for guiding the player's fingers in manipulating the strings of the instrument to change the tones thereof.

I am, of course, aware that means have been provided for guiding manipulation of the strings in the way of frets, as in the case of a guitar or banjo, but I anticipate the use of my invention in instruments in which the various pitches of a string are not determined by frets, but merely by the pressure of a player's fingers thereupon, in which class of instruments a much softer tone is produced. In the case of a violin, in which nothing but the most assiduous practice enables a player to properly manipulate the instrument, my invention becomes particularly applicable, and I have, therefore, illustrated the preferred embodiment thereof in connection with a violin in the accompanying drawings.

In these drawings, Figure 1 is a general view of the upper end of a violin embodying the novel features of my invention; Fig. 2 is a cross-sectional view on the line 2, 2 of Fig. 1, the sound box being removed; Fig. 3 is a view illustrating a modification within the scope of my invention, adapted to that class of instruments in which frets are used; Fig. 4 is a cross-sectional view on the line 4, 4 of Fig. 3; and Fig. 5 is an enlarged perspective view of one of these frets.

Referring first particularly to Fig. 1, I have illustrated the sound box of a violin at 5, this sound box having the usual sound

holes 6, 6, and having the finger-board 7 mounted upon the nick 7^a, as is usual in the art and as clearly shown in Figs. 1 and 2. The nick 7^a terminates in the peg box 8 and the usual scroll 9, and in this peg box are mounted, in tapered openings, the correspondingly tapered pegs 10, 10. To these pegs are secured respectively the various instrument strings, G, D, A and E, which pass therefrom over the nut 11, along the finger-board, over the bridge 12 and to some suitable securing means in the way of the usual tail piece not here shown.

Extending along the side of each of the strings referred to is a series of apertures 13, 13, properly spaced as will hereinafter be pointed out, and adapted for the reception of finger stops 14, 14 of such size and proportion as to not engage or interfere with the string with which they are associated. These finger stops and their position relative to the strings of the instrument are clearly shown in Fig. 2, and it is apparent that a player, in manipulating the strings, may easily guide his fingers to any particular point on the finger-board by engaging them or any of them with these finger stops so provided.

In the preferred arrangement of my invention, the apertures 13, 13 are so distributed, in the series which they form for each string, that they determine in that string the fingering points for each tone of the chromatic scale, thereby determining all the positions upon all the strings which the fingers of a player could possibly assume in the execution of any piece of music. The finger stops 14, 14 being removable and replaceable, it follows that the player of the instrument may employ them wherever he sees fit or wherever they would most assist him. I contemplate, however, as one of the many arrangements which may be employed, such distribution of the finger stops as to secure the determination of the fingering points on all the strings to secure the consecutive sounding of the ordinary major scales. Such an arrangement would be of great assistance to one playing the instrument, since he would be guided absolutely as to all the major tones in the natural scale, while he could easily determine the relative fingering positions for the various sharps or flats which he desired to employ. In view of the fact that the entire finger-board is thereby divided into spaces of half tones, it is clear

that re-arrangement of the finger stops would secure any of the scales in any desired key.

In playing the instrument, the player's 5 fingers are placed upon the finger-board in the usual manner, and in determining the proper position for any one tone his fingers are adjusted into engagement with the particular stop, and simultaneously with the 10 string to be struck. It is to be noted particularly, as to Fig. 1, that although the finger of the player would engage both the stop and the string, the string does not engage the stop, and the usual soft tone of the 15 violin is retained.

In Fig. 3, I have illustrated a portion of the finger-board of an instrument such as a guitar or mandolin, in which frets are used to determine the fingering positions to 20 secure the various tones of the strings. In the neck which carries the finger-board, there is provided at each point where a fret is desired a dove-tail slot 15, in which may be disposed the removable fret member 16 25 having the tenon 17 for engagement in the slot, and the fret portion 18 over which the strings are arranged to pass. In accordance with my invention, a particular construction of the frets is used by which they may be 30 cut away at desired points to avoid interference with a particular string, as clearly shown in the figures to which reference has been made. By properly placing these removable frets in the slots arranged for their 35 reception, the fingering points to secure any desired succession of tones, either individually on each string or on all the strings in consecutive succession, may easily be determined. Fig. 5 shows such a fret.

40 In Fig. 1, I have shown a plurality of stops so arranged as to determine the fingering points of the major scales, the key note in this instance being C when the strings are tuned to the pitch designated by the letters 45 applied to these various strings in the drawing. The finger stops 14 may be either elongated members, as shown at *m*, or in the form of a button, as shown at *n*, whichever form may prove most desirable. These buttons 50 are, in either form, so made as not to present interference with the easy sliding of the player's fingers up and down the finger-board. They are usually made with rounded tops, so that the player may be

guided by mere engagement therewith rather 55 than by positively encountering the same to arrest movement.

I claim as new and desire to secure by Letters Patent:

1. In a musical instrument, the combination of a string, a finger board, and stops 60 carried by the finger board and located to determine the tones of a diatonic scale, such stops being readily removable and insertible to determine the positions for any desired 65 diatonic scale.

2. In a musical instrument, the combination of a plurality of strings, a finger board, and a series of adjustable stops carried by 70 the finger board for each string and disposed in a position to determine the tones of a diatonic scale.

3. In a musical instrument, the combination of a plurality of strings, a finger board, and a series of adjustable stops carried by 75 the finger board for each string and disposed in a position to determine the tones of a diatonic scale, such stops being readily removable and insertible to determine the positions for any desired diatonic scale. 80

4. In a musical instrument, the combination of a plurality of strings, a finger board having a series of holes disposed adjacent to each string, said holes being spaced to 85 correspond to the notes of the chromatic scale, and removable finger stops inserted in a portion only of said holes in accordance with the tones of a diatonic scale.

5. In a musical instrument, the combination of a plurality of strings, a finger board 90 having a series of holes disposed adjacent to each string, said holes being spaced to correspond to the notes of the chromatic scale, and removable finger stops inserted in a portion only of said holes in accordance 95 with the tones of a diatonic scale, said stops being so disposed that they do not make contact with the strings when said strings are depressed against the finger board and capable of rearrangement to secure tone in- 100 tervals of any desired diatonic scale.

In witness whereof, I hereunto subscribe my name this 30th day of June, A. D. 1909.

KNUTE I. FINNEY.

Witnesses:

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