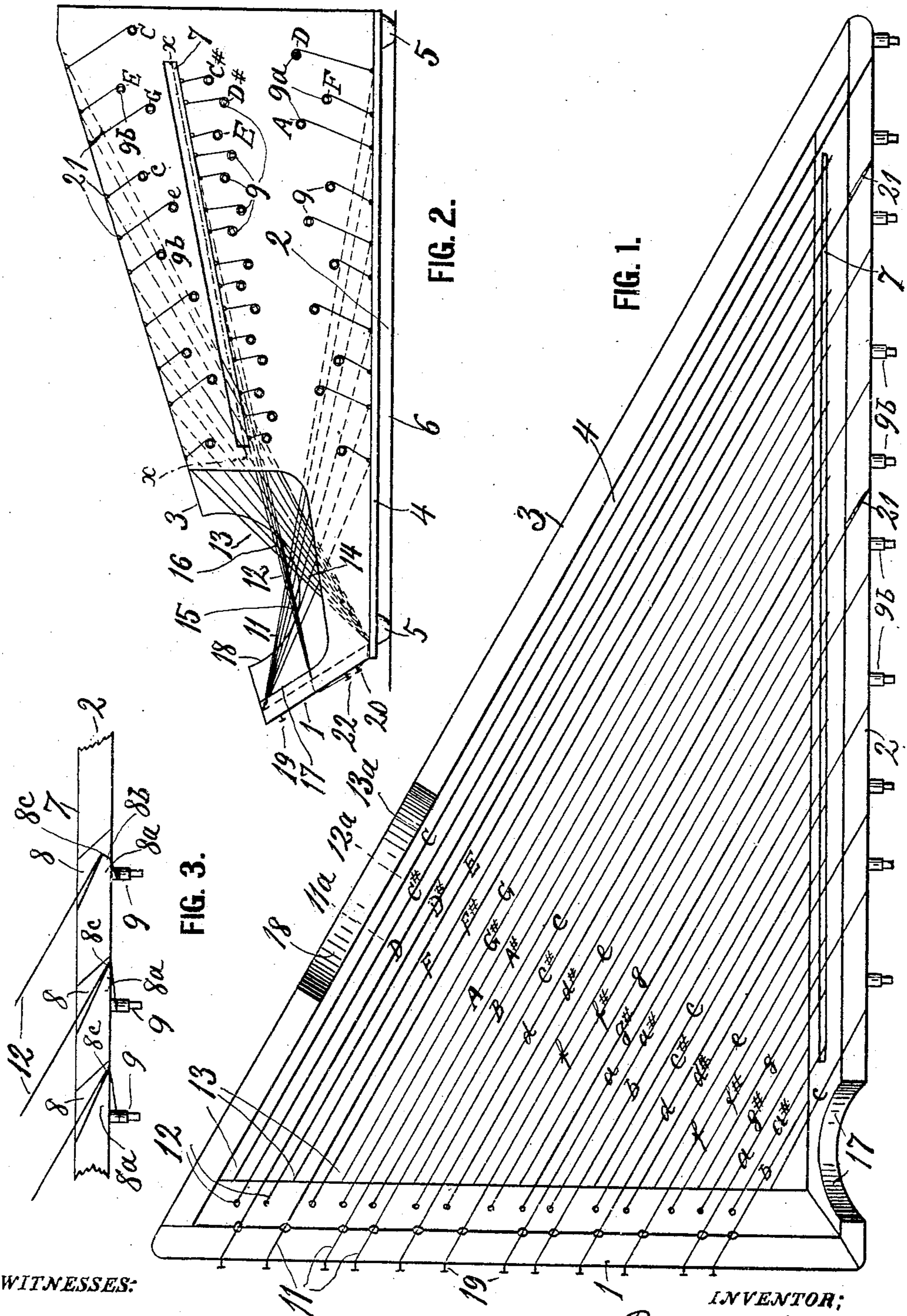


No. 878,006.

PATENTED FEB. 4, 1908.

P. JOHNSON.  
STRINGED MUSICAL INSTRUMENT.

APPLICATION FILED APR. 25, 1907.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

PETER JOHNSON, OF DOWNING, WISCONSIN.

## STRINGED MUSICAL INSTRUMENT.

No. 878,006.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed April 25, 1907. Serial No. 370,173.

*To all whom it may concern:*

Be it known that I, PETER JOHNSON, a subject of the King of Sweden, residing at Downing, in the county of Dunn and State of Wisconsin, have invented new and useful Stringed Musical Instruments, of which the following is a specification.

My invention relates to stringed musical instruments; and the object is to provide an improved harp of the class usually placed in horizontal position upon a table and played by drawing the finger or a plectrum across certain strings which make up chords.

Heretofore as far as I am aware such harps have either had cross bars by which to press down out of reach the strings not belonging to the chord to be played, or the strings for each chord have had to be arranged near each other without intermediate strings, or, the proper strings for each chord have had to be picked by so many fingers simultaneously or in rapid succession. These cumbersome means and methods I overcome by arranging the strings in the peculiar manner illustrated in the accompanying drawing, in which,—

Figure 1 is a plan or top view of my improved harp or stringed instrument. Fig. 2 is a side elevation of the instrument, and Fig. 3 is a top view looking into the slot in Fig. 2, as if the frame portion above line *xx* was removed.

Referring to the drawing by reference numerals, 1—2—3 represent a three-cornered frame having a bottom or sounding board 4 and short legs 5 of rubber or similar material adapted to stand upon a table 6 without defacing it. The frame is preferably higher at one end than at the other, although the principle on which the strings are arranged does not in all cases require it.

The frame bars 1 and 2 incline inward at their lower edges; and in the bar 2 is preferably provided a slot 7, having in its lower edge V-shaped notches 8 (see Fig. 3) for one out of three sets of strings to pass through and have their ends wound on tuning pegs 9.

The strings while arranged in the consecutive order of the chromatic scale, are divided into three sets 11, 12 and 13, of which the sets 11 and 13 cross each other at 14, and the set 12 crosses sets 11 and 13 at 15 and 16 respectively, so that the three sets of strings may be touched by drawing the finger or the plectrum across the strings as from D to b, or from C# to A# or from C to C. The

lines of motion thus indicated may for shortness here be indicated and termed touching-lines 11<sup>a</sup>, 12<sup>a</sup>, and 13<sup>a</sup>, and it will be seen that the strings exposed to touch in each line form the regular chords played on such instruments. 13<sup>a</sup> may be called the first chord, 11<sup>a</sup> the second, and 12<sup>a</sup> the third chord; and when other chords are desired the player simply applies his tuning key to the pegs and tune the necessary string to a higher pitch, as may be directed in printed instructions going with or on the instrument for those who may need such instructions.

To give the hands and plectrum more freedom of motion clearings 17 and 18 are provided in the side bars of the frame. This is however not necessary in small harps where the frame is much lower and the strings are fewer than in the present illustration.

It will be observed that the strings in set 11 are passed over the upper edge of frame bar 1 and secured to plain pegs 19, while the opposite ends are passed under the frame bar 2 and wound on tuning pegs 9<sup>a</sup>, in the outer side of the frame, as can be seen in Fig. 2, where three of the pegs are marked, D, F, and A to indicate the strings in line 11<sup>a</sup> wound on them. Likewise the strings in set 13 are passed under the frame bar 1 and secured at 20, while the opposite ends are guided by notches 21 in the upper edge of the frame and wound on tuning pegs 9<sup>b</sup>, with adjacent letters corresponding to the note-name of the string on each peg. The strings in the set 12 are passed through holes not shown in board 1 and secured on pegs 22 while the opposite ends are passed through the slot 7 in board 2, and wound on the tuning pegs 9. The length of each string is partly regulated by the outwardly inclined position of the upper edges of the boards or bars 1 and 2. Further regulation of the length of the strings in set 12 is, however, obtained by supporting the strings more or less close to the outer side of the board 2; this is done by cutting away more or less of the tongues 8<sup>a</sup> between the notches 8, as at 8<sup>b</sup> in Fig. 3, it being understood that the string vibrates freely in each notch 8, it being supported at the point 8<sup>c</sup>.

The note-indicating letters in lines or rows 11<sup>a</sup>, 12<sup>a</sup> and 13<sup>a</sup> are printed or marked upon the sounding board 4, and the latter may have sounding holes (not shown) as may be desired.

Having thus described my invention, what I claim is:—

1. In a stringed instrument, the combination with a three-cornered horizontally elongated box-shaped frame adapted to stand upon a table and having one long and one short side inclined outward at the top, of strings arranged in two sets, one set having the strings extended from the bottom edge of the short side to the top edge of the long side, and the other set having the strings extended from the top edge of the short side to the bottom edge of the long side the strings of one set passing between the strings of the other set.

2. In a stringed instrument, the combination with a three-cornered horizontally elongated box-shaped frame adapted to stand upon a table and having one long and one short side inclined outward at the top, of strings arranged in two sets, one set having the strings extended from the bottom edge of the short side to the top edge of the long side, and the other set having the strings extended from the top edge of the short side to the bottom edge of the long side, the strings of one set passing between the strings of the other set, said long side of the frame having a longitudinal slot with notches in the lower side thereof, a third set of strings having its strings passed alternately between the strings of the other sets and the string ends thereof secured to the short side at an elevation between the first two sets, and the opposite string-ends passed through said notches and

secured outside the frame, said third set of strings occupying an elevation slightly above the crossing of the first two sets of strings.

3. In a stringed instrument, the combination with a three-cornered horizontally elongated box-shaped frame adapted to stand upon a table and having one long and one short side inclined outward at the top, of strings arranged in two sets, one set having the strings extended from the bottom edge of the short side to the top edge of the long side, and the other set having the strings extended from the top edge of the short side to the bottom edge of the long side, the strings of one set passing between the strings of the other set, said long side of the frame having a longitudinal slot with notches in the lower side thereof, a third set of strings having its strings passed alternately between the strings of the other sets and the string ends thereof secured to the short side at an elevation between the first two sets, and the opposite string-ends passed through notches in the slot in the long side and secured outside the frame, said third set of strings occupying an elevation slightly above the crossing of the first two sets of strings, said frame having in its two longest sides cut out clearings for the hands playing on the strings.

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

PETER JOHNSON.

Witnesses:

ALWINE MAAS,  
H. J. MAAS.