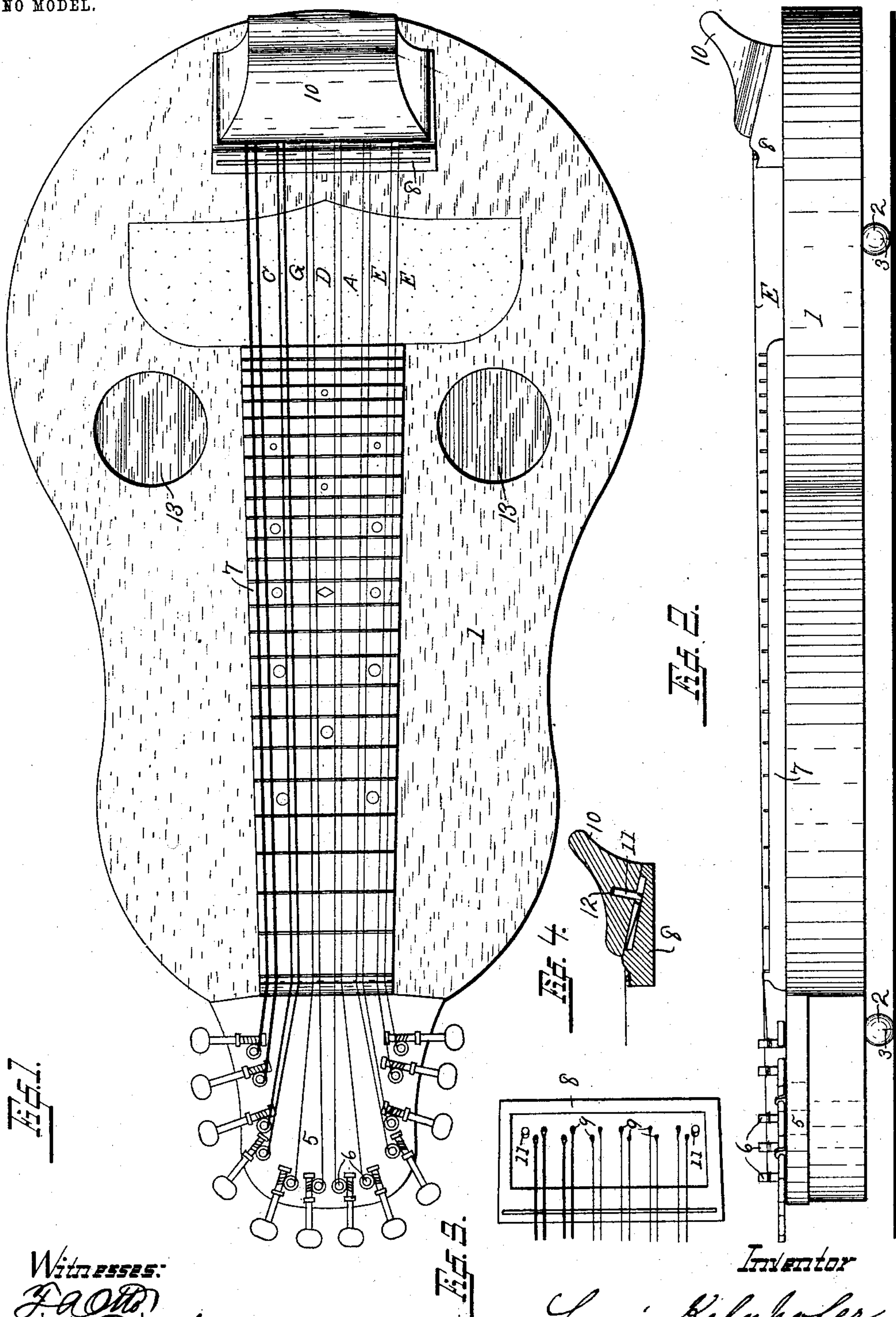


No. 721,127.

PATENTED FEB. 17, 1903.

L. KELNHOFER.
MUSICAL INSTRUMENT.
APPLICATION FILED APR. 20, 1901.

NO MODEL.



WITNESSES:
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UNITED STATES PATENT OFFICE.

LOUIS KELNHOFER, OF MILWAUKEE, WISCONSIN.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 721,127, dated February 17, 1903.

Application filed April 20, 1901. Serial No. 56,728. (No model.)

To all whom it may concern:

Be it known that I, LOUIS KELNHOFER, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Musical Instruments, of which the following is a specification.

My invention relates to improvements in musical instruments.

The object of my invention is to provide a form of stringed instrument adapted to be placed flat upon a supporting table or bench and provided with an arrangement of strings similar to that found in a mandolin, but with a much greater range, both of scale and harmony, than is to be found in that instrument.

Regard is also had for convenience of manipulation, fullness and volume of sound, and neatness of appearance.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a top view of my invention. Fig. 2 is a side view of the same. Fig. 3 is a detail top view of the bridge and tailpiece. Fig. 4 is a cross-sectional view of the same.

Like parts are identified by the same reference characters in all the views.

The body 1 of my improved instrument is somewhat similar in shape to a violin, but without the inwardly-curving recess or notch in its sides, which is found in violins. The bottom is substantially flat, with supporting-knobs 2, provided with metallic points 3, by means of which the instrument is prevented from sliding on the table. The head 5 is short, being merely adapted to provide bearings for the keys 6, and the finger-board 7 is located on the body of the instrument, thus dispensing with the elongated neck, such as is found in a mandolin. The bridge 8 is extended rearwardly and serves also as a tailpiece, being provided with binding-posts 9, covered by a hand-rest 10, which is removably secured to the instrument by means of pins 11, adapted to register with sockets 12 in the tailpiece. The strings are arranged in sets and tuned in fifths, commencing with two pairs or sets of E strings, then one set each of A, D, G, and C strings, respectively, as designated by corresponding reference-letters in Fig. 1. Each set consists in a pair of like strings, although a greater number may

be employed, if desired. The sound-openings 13 are located at the sides of the finger-board 7, the latter being provided with an extensive series of frets.

In use the instrument is placed flat upon a supporting table or stand, and the strings are struck, preferably with a mandolin-pick, the position of the instrument allowing the operator great freedom of movement with both hands.

It is obvious that a much wider range both in scale and harmony is attainable than in the ordinary mandolin, it being, in fact, as wide as that of a violin. At the same time the use of sets of like strings gives the peculiar vibratory or tremolo notes peculiar to the mandolin. I attach great importance, however, to the use of two independent sets of the strings of the highest pitch, as I am enabled thereby to produce extremely-sweet sounds of both a pulsatory and tremulous quality with the initial stroke of each harmony. This initial pulsatory note is secured by the use of the two sets or pairs of E strings, for when the pick is drawn across the four strings composing these two sets the strings of the second set will be struck before the sound-producing vibrations of the first set cease. The effect when the pick is thus used is to produce a single note having both a vibratory quality due to the presence of the unison strings and a pulsatory quality due to the presence of a longer interval between the two sets of unison strings. I am also able to produce upon an instrument of this character the peculiar trill heretofore thought to be practical only in instruments of the character of the violin and flute, for while in a mandolin and zither a form of trill can be secured greatly inferior to the quality of that produced by the violin or flute I am enabled with the described arrangement of the strings to secure a trill superior in quality and smoothness to that of any other instrument, owing to the fact that the vibrations of the first set of E strings are not deadened by the repetition of the note upon the second set of E strings.

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

1. In a musical instrument, combining features of the mandolin and zither, the combi-

nation of a series of strings arranged in unison sets, and a plurality of such sets representing one of the notes, with an intervening space between the sets representing that
5 note, of greater width than the spaces between the strings comprising a set, whereby the vibratory sound produced by one set of such strings is duplicated in the next set, before the cessation of the sound-producing vibrations of the first set of strings.
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2. In a device of the described class, a body portion adapted to be supported in a flat position on a supporting table or stand, and provided with a suitable bridge head-piece, tail-

piece, finger-board and frets for all the strings; 15
a series of strings arranged in unison sets, and a plurality of such sets composed of strings of highest note, the spaces between the sets of strings being greater than those between the strings of a set, whereby a succession of vibratory sounds of the same key 20
are blended into a single pulsatory note.

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

LOUIS KELNHOFER.

Witnesses:

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